Brightek Optoelectronics

Company Profile

Presented by Brightek (Europe)

Company introduction

- Brightek Optoelectronics is a Taiwanese-owned LED manufacturer. The company was founded in Shenzhen, China in 2001, and in 2009, its new headquarter and R&D centre were established in Taoyuang, Taiwan.

- In order to meet the high demand for optoelectrical products worldwide, Brightek has been developing all kinds of LEDs from PTH Lamp, SMD, Superflux, and High Power since 2001.

- The Brightek European office was set up in London, United Kingdom in 2007. With the aim to provide the best service without time difference between west and east, Brightek (Europe) is the best choice in the European market.

Company network

- <u>Brightek Electronic Inc – Taoyuang, Taiwan</u>
  - Headquarter
  - Capitalisation: US$11 millions
  - Product Development Centre
  - High Power LED & AC LED line

- <u>Brightek Optoelectronics – Shenzhen, China</u>
  - Factory 1: Lamp LED line
  - Factory 2: SMD & High Power LED line
  - Factory 3: Application & Module line

- <u>Brightek (Europe) Limited – London, UK</u>
  - European Headquarter (Brightek LED & StarChips IC)
  - Capitalisation: £200,000.00
  - German office in Berlin

BRIGHTEK
BRIGHTEK (EUROPE) LIMITED

Company culture

- **Principle**
  - Satisfying customers' requirements
- **Spirit**
  - Exploring, enterprising, practical & self-surpassing
- **Belief**
  - Green, efficiency, market-leading & perfection
    - **Green**
      - To develop energy saving LED
    - **Efficiency**
      - To offer efficient services to all customers
    - **Market-leading**
      - To be a leader in both domestic & international markets
    - **Perfection**
      - Pursuing ZERO defect in product quality

Development history

- 2001.11 - Brightek founded
- 2002.03 - Shenzhen Factory starts mass production
- 2002.09 - LED Lamps capacity reached 10kk/month
- 2003.06 - Extended in Asian and European market successfully
- 2003.09 - Germany TUV QS9000/ISO9001 IQM certificate obtained
- 2004.03 - LED Lamps capacity reached 30kk/month
- 2005.03 - BSI ISO14001 International Environmental Management certificate obtained
- 2005.08 - LED Lamps capacity reached 60kk/month
- 2006.04 - SONY Green Partner certificate obtained
- 2007.02 - Germany TUV ISO/TS16949 IQM certificate obtained
- 2007.03 - LED Lamps capacity reached 80kk/month
- 2008.02 - LED Lamps capacity reached 90kk/month
- 2008.02 - UL QC080000 certificate obtained
- 2009.11 - Brightek Group Headquarter was set-up in Taiwan
- 2010.02 - LED Lamps capacity reached 120kk/month
- 2010.04 - Prepare to be listed in the stock market in Taiwan in 2011.

Development plan in 3 years

- **Capacity**：
  - To increase to 400kk/month from current 120kk/month

- **Products**：
  - To increase SMD, IRM, High power products from current dip-through type LED, PCB RGB, Superflux, IR, PT and holders

- **System**：
  - To bring in MES (manufacturing execution system)

- **Equipments**：
  - To invest NT$2 bn for new eutectic superflux/SMD machines

- **Employees**：
  - To increase senior engineers to 15% from 8% of total employees

- **Factory building**：
  - To invest 2 billion Taiwan dollar to increase the factory to 37km²

- **Other perspectives**：
  - To be listed in Taiwan stock market in 2011

Capital and sales growth report

BRIGHTEK
BRIGHTEK (EUROPE) LIMITED

■ Paid-in Capital(in millions)   ■ Sales(in millions)
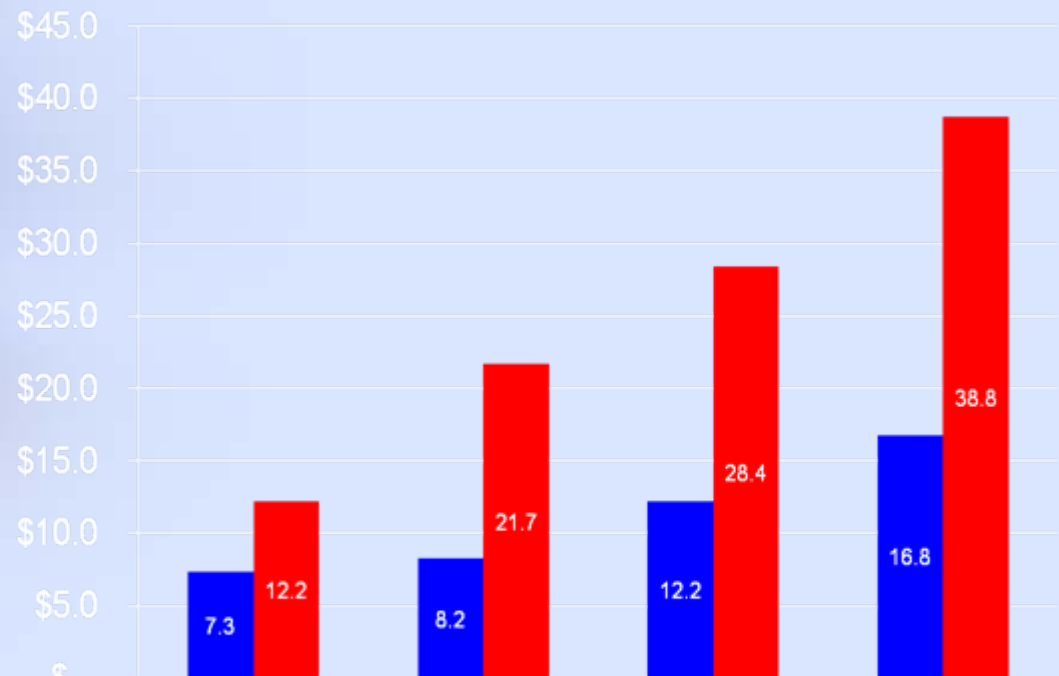
	2007	2008	2009	2010
Paid-in Capital(in millions)	$7.3	$8.2	$12.2	$16.8
Sales(in millions)	$12.2	$21.7	$28.4	$38.8
Sales Growth Rate (%)		78%	31%	37%

Certificates

ISO/TS16949:2002   IECQ QC080000:2005   ISO14001:2004
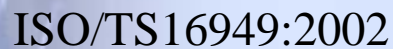
LAMP Workshop

Auto die mounting station & eutectic bonding machines

- Our auto die mounting machines can perfectly avoid die mounting misalignment and ensure uniform light beam as well.
- Eutectic bonding machines can do die bonding directly without epoxy.
- Capacity: 12,000 pcs/hr

Auto wire bonding machines

- Our auto wire bonding machines' accurate loop controlling system contributes greatly to the perfect arc of gold wire inside LED. It also can cooperate with BB0S & BSOB system.
- Capacity: 14,000 pcs/hr

Auto encapsulation

- Our encapsulation equipments are programmed to adjust parameters such as the curing temperature, insertion depth, and curing time according to the types of epoxy resin used. It greatly strengthen our product quality and consistency
- Capacity: 6,000PCS/H/Machine

SMD Workshop

SMD workshop

- All closed humidity and temperature control workshop, to meet dust level 10K standard, prepared good environment for the SMD production.

- Capacity: 12,000PCS/H

SMD packing machine   SMD binning machine

QC Test machinery

- **Chip**
  - Bare chip tester & ETS 910 ESD simulator
  - High precision surveying & drawing instrument

- **Lead frame**
  - Profile Projector
  - X-Ray Compact

- **IPQC**
  - Pull force and ball shear testing machine
  - Viewing angle instrument

- **DSC**
  - TA-DSCQ10
  - S370 Tester

- **FQC:**
  - CYT-T636 High precision testing machine
 - IS Standard testing machine
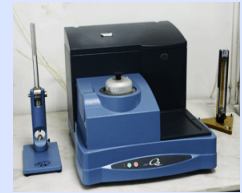
Reliability test & standards

- **Normal temperature Aging Test**
  - Condition: Temp:23±5℃ I$_F$=20mA
  - Standard: JESD22-A108-A

- **High temperature Aging Test**
  - Condition: 60-85℃±5℃ 20mA/30mA/50mA /1000h;
  - Standard: JESD22-A108-A

- **Thermal Shock**
  - Condition:-45℃/30min～105℃/30min; 50Cycles
  - Standard: JESD22-A106

- **Permanent temperature & humidity test**
  - Condition:H:+85℃/1H; RH:95%; L:-25℃/1H 50Cycles
  - Standard: JESD22-A101

- **Reflow Test**
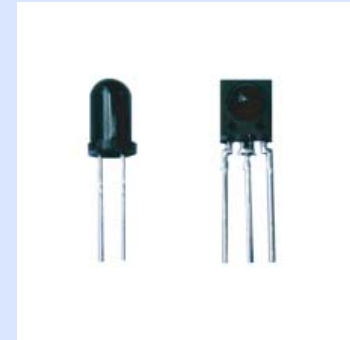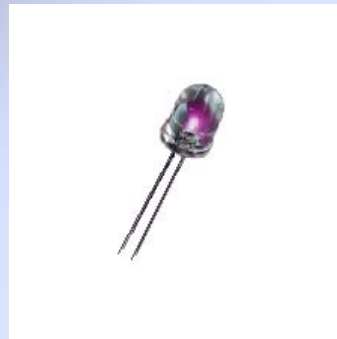 - Condition:190℃～280℃～180℃; 3min/2cycyles
  - Standard: JESD22-A106

- **Polishing Test**

Lamp

3/5/8/10 mm Lamp
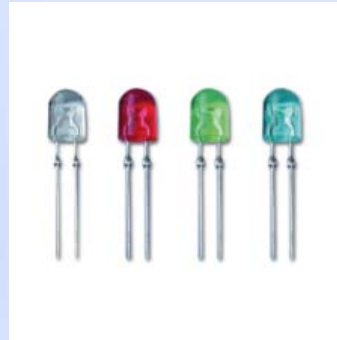
Oval Lamp

IR/RT Lamp

UV

PT/IRM

High Power LED

0.5W
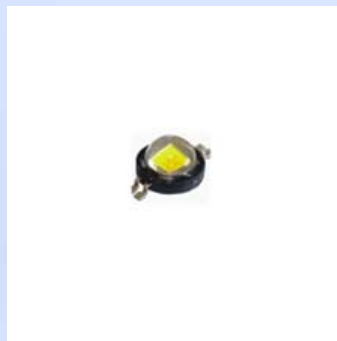
1/3/5W
(2835/3535/5630/K1)

5/10/17W Light Bar Module

0.5W with Star

1/3/5W with Star

Superflux   # SMD

3mm   Chip LED   PLCC LED
5mm   0603   2121
Flat Top   0805   3020
                        1204   3528
                        1206   5050
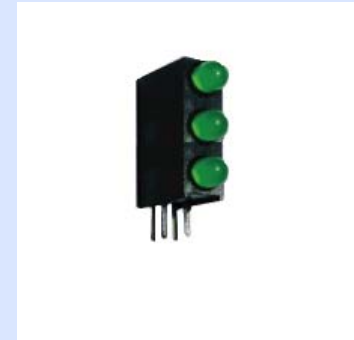   2421
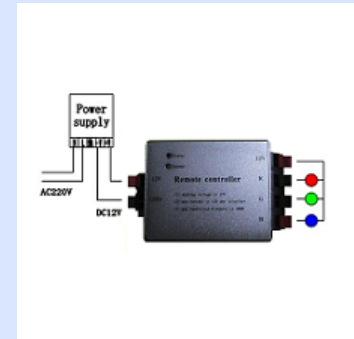
And more…

Dot Matric

LED Light Strip

Holder

Channel Letter

Street Light (OEM)

Remoter Controller

LED driver

StarChips Technology (SCT)

Fabless design house with capital US$5M has over 20 best selling models and 10 ASIC designs

Major Focus

Constant current driver ICs for (1) LED Display (2) LED Lighting (3) Customized design to best match your inquiries.

Fundamental Value

One-stop-solution for fastest time-to-market. Value-added to your selling kits and product features.

Thank you

Brighten Up The World with LED

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