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**No. 2411**

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## **MITSUBISHI ELECTRIC ANNOUNCES SALE OF ML520G51, 640 nm 150 mW CW LASER DIODE**

**Tokyo, June 12, 2007** – Mitsubishi Electric Corporation (President and CEO: Setsuhiro Shimomura) announced today it has completed development of the ML520G51 high output red laser diode. The diode is capable of the world's highest optical output standard of 150 mW at 640 nm, and is for use in mobile projectors, laser show devices, and other applications in the industrial and medical fields. Sample shipments will begin on June 25, 2007.

### **Summary of Sale**

Model	Specification	Price of sample (Including tax)	Shipment date	Production
ML520G51	640 nm BA-LD (Broad Area Laser Diode) Small emitting area (40 um) High output power (150 mW CW) Standard 5.6 mm CAN package	\$ 250	June 25, 2007	10,000 pcs/month from Dec. 2007

### **Point of Sale**

Laser diodes are widely used in many applications such as optical communications and optical disc systems like DVD, and many have noted their suitability for new applications like mobile projectors and laser shows. Mitsubishi Electric manufactures 660 nm high power laser diodes, and has become a leading supplier of high-power red laser diodes for recordable DVD. We have now completed development of the high power red laser diode ML520G51 for use in displays based on technology from similar laser diodes. This red laser diode appears bright to the human eye, and is capable of expressing the deep reds at the 640 nm wavelength-range, and is also capable of an output of 150 mW, the world's highest output for a 5.6 mm diameter TO-CAN.

## **Product Features**

### **1) 150 mW CW High output power, highest recorded wall-plug efficiency of 23 %**

Wall-plug efficiency of previous 640 nm band laser diodes has been up to 15%. By optimizing the structure and manufacturing process of the laser diode, the ML520G51 has a world record wall-plug efficiency of 23%, making possible one of the industry's best power output of 150 mW (within -5°C and +45°C). The high wall plug efficiency of the ML520G51 will reduce device power consumption and can also lengthen use time of especially battery-driven mobile devices.

### **2) Lasing at 640 nm**

The human eye detects red light as being brighter, even at the same strength, as if it had a shorter wavelength. However, light at 620 nm is not a true red but reddish orange, and the human eye is very sensitive to the differences in red light. The deep red that can be emitted by the ML520G51 at 640 nm can express the subtleties of the red spectrum and is suitable for display applications.

### **3) Small 5.6 mm diameter TO-CAN package**

The laser diode has highest recorded wall-plug efficiency with low thermal output power. This enables the laser diode to be incorporated into a small hermetically sealed 5.6 mm diameter TO-CAN package, reducing the size of mobile devices.

## **Product Characteristics**

	Conditions (@ 25°C)	Typical value
Output Power	CW	150 mW
Lasing Wavelength	Po = 150 mW, CW	640 nm
Operation Current	Po = 150 mW, CW	280 mA
Beam Divergence (FWHM)	Parallel (80mW, CW)	7°
	Perpendicular (80mW, CW)	40°
Temperature Range		-5°C to +45°C
Package Outline		5.6 mm diameter

## **About Mitsubishi Electric**

With over 80 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation (TSE:6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. The company recorded consolidated group sales of 3,855.7 billion yen (US\$ 32.7billion\*) in the fiscal year ended March 31, 2007. For more information visit <http://global.mitsubishielectric.com>

\*At an exchange rate of 118 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2007