

**Press Release**  
**May 2006**

## ***New Epson Toyocom Crystal Oscillator Reduces Current Consumption by up to 50%***

***Munich, May 15th 2006: Epson Toyocom Corporation has developed the SG-210 Series Crystal Oscillator with breakthrough energy performance for its 2.5 x 2.0 mm size. Volume production will begin in September 2006.***

With manufacturers of mobile phones and compact mobile devices increasingly incorporating GPS and cameras, as well as new functions such as one-segment digital multimedia broadcast viewing, electronic components must be compact and energy-efficient.

To meet these needs, Epson Toyocom has developed the SG-210 Series, with current consumption up to 50% lower than that of its predecessor model. The new product offers low voltage drive (1.3 V) with a frequency range (2 MHz - 48 MHz) suitable for a wide array of clock applications.

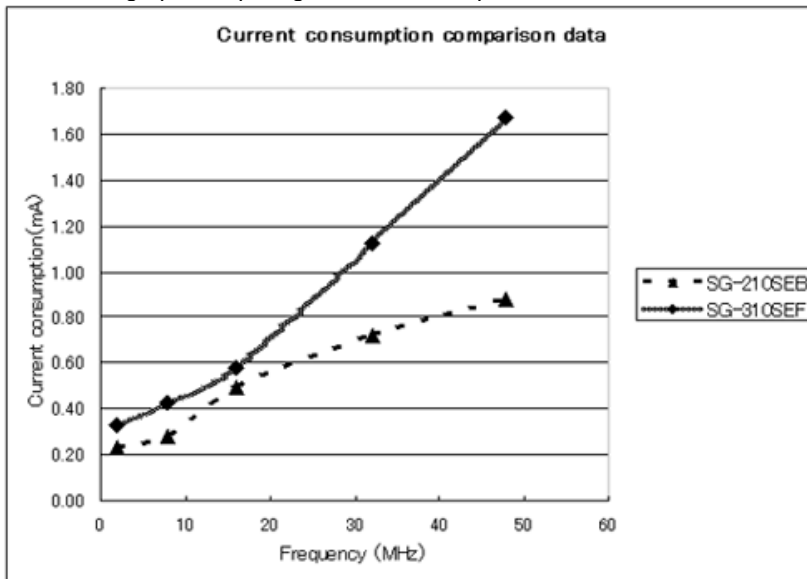
Major specifications of SG-210 series

	SG-210 Series specifications				Remarks
	SGB	SEB	SDB	SCB	
Supply voltage	1.5 V Typ. (1.3 V - 1.7 V)	1.8 V Typ. (1.6 V - 2.2 V)	2.5 V Typ. (2.2 V - 3.0 V)	3.3 V Typ. (2.7 V - 3.6 V)	
Current consumption	1.0 mA Max.	1.6 mA Max.	2.4 mA Max.	3.0 mA Max.	No load
Output frequency range	2 MHz - 32 MHz	2 MHz - 48 MHz			
Frequency tolerance / Temperature range	B: $\pm 50 \times 10^{-6}$ / -20°C - +70°C M: $\pm 100 \times 10^{-6}$ , L: $\pm 50 \times 10^{-6}$ / -40°C - +85°C				

Reference: major specifications of earlier model SG-310 series

	SG-310 Series specifications			Remarks
	SEF	SDF	SCF	
Supply voltage	1.8 V Typ. (1.6 V - 2.2 V)	2.5 V Typ. (2.2 V - 3.0 V)	3.3 V Typ. (2.7 V - 3.6 V)	
Current consumption	3.0 mA Max.	3.5 mA Max.	4.5 mA Max.	No load
Output frequency range	2 MHz - 48 MHz			

Reference: graph comparing current consumption of new SG-210 and earlier model SG-310 series



#### Pictorial

SG-210 series

#### About Epson

Epson is a global leader in imaging products including printers, 3LCD projectors and small- and medium-sized LCDs. With an innovative and creative culture, Epson is dedicated to exceeding the vision and expectations of customers worldwide with products known for their superior quality, functionality, compactness and energy efficiency.

Epson is a network of 90,701 employees in 120 companies around the world, and is proud of its ongoing contributions to the global environment and to the communities in which it is located. Led by the Japan-based Seiko Epson Corp., the Group had consolidated sales of 1549.5 billion yen in fiscal 2005.

#### About Epson Europe Electronics GmbH

Epson Europe Electronics GmbH is a marketing, engineering and sales company and the European Headquarters for Electronic Devices of the Seiko Epson Corp., Sanyo Epson Imaging Devices Corp. and Epson Toyocom Corp., Japan.

Headquartered in Munich/Germany, Epson Europe Electronics GmbH has Branch Offices in Düsseldorf/Germany, Paris/France, London/United Kingdom and Barcelona/Spain and has a European-wide network of distributors.

We provide value added services for Semiconductors, Displays and Quartz Devices targeted to the mobile communication, automotive and home visual market. Epson products are recognised for energy saving, low power, small form factors and rapid time to market.

Information about Epson Europe Electronics GmbH is available in the Internet under

**[www.epson-electronics.de](http://www.epson-electronics.de)**.

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