

April 25, 2006

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

Epson Toyocom Corporation has developed the SG-210 Series Crystal Oscillator with breakthrough energy performance for its 2.5 × 2.0mm 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 (1.3V) 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.	3.0mA Max.	No load
Output frequency range	2 MHz - 32MHz	2 MHz - 48MHz			
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 - 48MHz			

Reference: Graph comparing current consumption of new SG-210 and earlier model SG-310 Series

