

Global and China Crystal & Oscillator Industry Report, 2009-2013



Crystal oscillator, being one of the most common components in electronic products, has been widely applied for nearly all electronics. The top four crystal oscillator manufacturers are all from Japan, followed by TXC Corp and Vectron. Vectron, one member of DOVER Group, is from the United States. Rakon, a New Zealand's manufacturer, is adept in producing crystal oscillators for high-precision GPS. HELE and Hosonic are Taiwan's manufacturers, yet the technologies of the both are introduced from Japan. Besides, TEW and River are Japan's manufacturers, and Taitien is from Taiwan. Pericom mainly engages in Clock IC, followed by crystal oscillator. MicroCrystal, a Swiss manufacturer, mainly produces cell phone crystal oscillator.

World Top 19 Crystal Oscillator Manufacturers by Revenue, 2009

	Revenue, 2008 (US\$ mln)	Revenue, 2009	Revenue, 2009 (US\$ mln)
Epson Toyocom	675	795 (JPY100 mln)	846
NDK	571	561 (JPY100 mln)	597
KDS	327	328 (JPY100 mln)	349
Kyocera Kinseki	304	298 (JPY100 mln)	317
TXC	222	223 (US\$ mln)	223
Vectron	200	202 (US\$ mln)	202
Rakon	96	120 (US\$ mln)	120
HELE	118	3,688 (NT\$ mln)	112
Hosonic	119	110 (US\$ mln)	110
TEW	75	70 (US\$ mln)	70
River	51	519 (JPY100 mln)	55
Taitien	51	1,774 (NT\$ mln)	54
Pericom	53	53 (US\$ mln)	53
Micro Crystal	56	50 (US\$ mln)	50
Siward	51	1,517 (NT\$ mln)	46
TAI-SAW	45	1,388 (NT\$ mln)	42
Jingyuan Yufeng	38	278 (RMB mln)	40
ECEC	28	218 (RMB mln)	32
Aker	18	17 (US\$ mln)	17

The year of 2008 witnessed the depression of crystal oscillator industry, and the fear for MEMS and silicon crystal oscillators resulted in the intensive price war in quartz crystal oscillator market. Then the position of traditional quartz crystal oscillator industry has been consolidated after the price war, and the high precision of quartz crystal oscillator has bestowed it a strong vitality, while the prospect of MEMS and silicon crystal oscillators is not yet clear.

Since higher entry barrier and being prevalently applied, the crystal oscillator industry had not shown the striking depression in 2009, and some manufacturers even achieved growth.

Table of Contents

- **1. Profile of Crystal Oscillator**
- **2. Crystal Oscillator Market**
 - 2.1 Downstream Market
 - 2.2 Status Quo of Crystal Oscillator Market
 - 2.3 Future Trend of Crystal Oscillator Market
 - 2.4 Future Developments of Products
- **3 Crystal Oscillator Industry**
 - 3.1 Status Quo
 - 3.2 MEMS Oscillator & Silicon Oscillator
 - 3.2.1 MEMS Oscillator
 - 3.2.2 Silicon Oscillator
 - 3.2.3 Sitime
 - 3.2.4 Discera
 - 3.3 QMEMS
- **4 Crystal Oscillator Manufacturers**
 - 4.1 EPSONTOYOOCM
 - 4.2 NDK
 - 4.3 KYOCERA KINSEKI
 - 4.4 KDS
 - 4.5 VECTRON
 - 4.6 TXC
 - 4.7 TEW
 - 4.8 RAKON
 - 4.9 RIVER
 - 4.10 PERICOM
 - 4.11 Siward
 - 4.13 HELE
 - 4.13 Jingyuan Yufeng
 - 4.14 Taitien
 - 4.15 Aker
 - 4.16 TAI-SAW
 - 4.17 ECEC
 - 4.18 Other Mainland Manufacturers
 - 4.18.1 Hubei Dongguang Group
 - 4.18.2 Nanjing HuaLianXing Electronics

Selected Charts

- Cell Phone Crystal Component Shipment, 2007-2012
- Cell Phone Crystal Component Shipment Structure, 2007-2012
- Demand of Cell Phone Additional Functions for Crystal Components, 2007-2012
- WLAN Market Layout by Technology, 2006-2012
- Downstream Layout of Global WLAN Market, 2007-2013
- Consumer Electronics Distribution of Global WLAN Market, 2007-2013
- WiMAX Network Equipment Market Scale, 2006-2013
- WiMAX Clients (Accumulated) by Region, 2006-2010
- WiMAX Shipment, 2006-2010
- Global Broadband User Number, 2009-2013
- DSL CPE Market Scale, 2008-2013
- Global FTTx User Number and Access Type by Region, 2009Q3
- PC Shipment, 2009-2012
- Shipment of AV and Office Equipment, 2007-2012
- Shipment of Global Wireless Base Stations, 2007-2012
- Shipment of Global Optical Communication Equipment, 2007-2012
- Demand of Vehicle-based Crystal Components, 2007-2015
- Global Crystal Oscillator Market Shipment and Application Structure, FY2004-FY2009
- Japan Crystal Oscillator Market Shipment and Application Structure, FY2004-FY 2009Q3
- Japan Crystal Oscillator Market Scale and Application Structure, FY 2004-FY 2009Q3
- Global Crystal Oscillator Market Scale, 2004-2012

- Crystal Oscillator ASP, FY2001-FY2010
- SMD Crystal Oscillator Structure by Size, FY1999-FY2010
- SMD Crystal Oscillator Component Shipment, 2007-2012
- World Top 14 Crystal Oscillator Manufacturers by Revenue, 2004, 2005 & 2006
- Global Crystal Oscillator Industry Output Value by Region, 2009
- MEMS Oscillator Technology Roadmap
- Si500S Block Diagram
- Sitime MEMS Oscillator
- Epson Toyocom Revenue and Net Profit, FY2002-FY2010
- Epson Toyocom Product Technology Structure, FY 2005-FY2006
- Epson Toyocom Product Downstream Application Structure, FY2005-FY2006
- Epson Toyocom Revenue by Product, FY2007-FY2010
- Epson Toyocom Revenue by Downstream Product, FY2007-FY2010
- Epson Toyocom Presence Worldwide
- NDK Revenue and Operating Profit, FY2003-FY2009
- NDK Revenue and Operating Profit, H1, FY2006-H1, FY2009
- NDK Product Shipment and Structure, FY2005-H1, FY2009
- NDK Revenue by Product, 2005FY-H1, FY2009
- NDK Revenue by Downstream Product, FY2006-H1, FY2009
- NDK Revenue by Downstream Product, FY2008-FY2010
- NDK R&D Expense, FY2006-FY2010
- Kyocera Kinseki Revenue and Pre-tax Profit, FY2006-FY2007
- Kyocera Kinseki Long-term Operation Objectives
- Kyocera Kinseki Revenue by Division, FY2009-FY2010
- Revenue of Kyocera Kinseki Electronics Component Division, FY2009Q1-FY2010Q2

- Operating Profit of Kyocera Kinseki Electronics Component Division, FY2009 Q1-FY2010Q2
- KDS Revenue, FY2003-FY2007
- KDS Revenue by Region, FY2005-FY2009
- KDS Revenue by Product, FY2009
- KDS Revenue by Downstream Product, FY2007-FY2009
- KDS Revenue and Operating Profit, FY2005-FY2010
- KDS Revenue and Net Profit, FY2005-FY2010
- TXC Revenue, 2002-2009
- TXC Revenue and Growth Margin, 2005Q1-2009Q4
- TXC Net Profit and Growth Margin, 2005Q1-2009Q4
- TXC Product Ratios by Application, 2006 vs. 2007
- TXC Product Ratios by Application, 2008 vs. 2009
- TXC Product Ratios by Specific Application, 2006-2007
- TXC Product Structure by Technology, 2006 vs. 2007
- TXC Product Structure by Technology, 2008 vs. 2009
- TXC Client Structure, 2006
- TXC Product and Technology Strategy
- TXC SMD Product by Frequency
- TXC Output Capacity by Plant
- Rakon Revenue and EBITDA, FY2002-FY2009
- Rakon Revenue by Region, FY2008-FY2009
- Rakon GPS Crystal Oscillator Sales and Average Price, FY2009Q1-FY2010Q2
- Rakon Financial Statement, FY2008-FY2009
- Rakon Presence Worldwide, 2006

- Rakon Product Ratios by Application, 2006
- Rakon Main Clients
- Rakon Main Chipset Partners
- Rakon Main Product Lines
- Rakon Technology Directions
- River Revenue, FY2003-FY2010
- River Revenue by Region, FY2008-FY2009
- River Financial Statement, H1, FY2010
- River Product Application in Downstream, FY2006-FY2009
- River Product Application in Downstream, FY2010
- Pericom Revenue and Operating Profit, FY2005-FY2010
- Pericom Revenue by Region, FY2007-FY2009
- Pericom Revenue by Division, FY2007-FY2009
- Siward Presence Worldwide
- Siward Revenue and Gross Profit Margin, 2002-2010
- Siward Monthly Revenue, Jan, 2007-Nov, 2009
- Siward Revenue by Region, 2006-2008
- Siward Output Capacity, 2009-2011
- Siward Product Application in Downstream, 2009
- Siward Revenue by Region, 2009
- HELE Revenue and Gross Profit, 2004-2009
- Jingyuan Yufeng Output and Output Value, 1991-2007
- Jingyuan Yufeng Revenue and Operating Profit, 2004-2010
- Taitien Revenue and Gross Profit Margin, 2004-2010

- Taitien Revenue by Product, 2006-2009Q1
- Taitien Product Application in Downstream, 2006-2009Q1
- Aker Revenue, 1999-2008
- Aker Product Application in Downstream
- Aker Automotive Crystal Oscillators
- Aker Technologies
- Aker Process Capability
- ECEC Revenue and Operating Profit, 2005-2010
- World Top 14 Crystal Oscillator Manufacturers by Revenue, 2004-2006
- World Top 19 Crystal Oscillator Manufacturers by Revenue, 2009

How to Buy

Product details			How to Order
	USD	File	By email: report@researchinchina.com
Single user	2,300	PDF	By fax: 86-10-82600829
Enterprisewide	3,500	PDF	By online: www.researchinchina.com
Publication date: Feb. 2010			
For more information, call our office in Beijing, China: Tel: 86-10-82600828 Website: www.researchinchina.com			