

環境報告書 2005-2006



Environmental Report

株式会社 **大真空**
DAISHINKU CORP.

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会社概要 / Company Profile

商号：株式会社 大真空
DAISHINKU CORP.
商標：**KDS**
本社：兵庫県加古川市平岡町新在家 1389
業種：電子部品及び電子機器の製造販売
創業：昭和34年11月3日(1959年)
代表者：代表取締役社長 長谷川 宗平
資本金：193億44百万円
従業員数：824名(2006年3月現在)

Corporate name : DAISHINKU CORP.
Logo : **KDS**
Head Office : 1389 Shinzaike, Hiraoka-cho, Kakogawa, Hyogo
675-0194 Japan
Types of business :
Manufacture and sales of electronic components and electronic equipment
Inauguration of business: November 3, 1959
Representative : President Sohei Hasegawa
Capital : 19,344million yen
No. of employees : 824

対象範囲 / Object of this report

株式会社 大真空	DAISHINKU CORP.
本社 鳥取事業所 徳島事業所	Head office
光学事業所 黒田庄工場 中央研究所	Tottori Production Division
物流センター	Tokushima Production Division
株式会社 九州大真空	Optical Quartz Production Division
天津大真空有限公司	Kurodasho Plant
PT.KDS INDONESIA	Central Laboratory
	Distribution Center
	KYUSHU DAISHINKU CORP.
	TIANJIN KDS CORP.(China)
	PT.KDS INDONESIA (Indonesia)

対象期間 / Period

2004年4月～2006年3月の活動実績を中心に作成しています。

This Environmental Report mainly covers environmental activities and achievements during the period from April 2004 to March 2006.

対象期間内の事業上の変更 / Operational change during the period

2005年10月：宮崎工場の業務を株式会社九州大真空に移管

October 2005 : Miyazaki Plant was reorganized into KYUSHU DAISHINKU CORP.

参考ガイドライン / Reference guidelines

環境報告書ガイドライン 2003：環境省
環境報告書作成の手引き：環境省

Environmental Report Guidelines 2003,
published by the Ministry of the Environment, Japan
Environmental Report Preparation Guidelines,
published by the Ministry of the Environment, Japan

企業活動としての環境保全

地球環境問題に関する取り組みも含めて、企業の社会的責任やコンプライアンスなど多角的にバランスのとれた企業活動が強く求められる時代になり、当社も豊かなエレクトロニクス社会の創造に貢献する一企業として活動を続けてまいりました。

その一環でもある環境経営の報告として、4回目の環境報告書を発行し、当社の環境保全への活動を皆様にお伝えしたいと考えております。

一方、欧州を中心とした電化製品に対する有害物質の法規制もいよいよ発効され、環境に配慮した製品・部品が求められています。水晶デバイスマーケットはデジタルネットワーク社会を支える重要な要素であり、当社は水晶デバイスの設計、生産から販売において、製品の環境配慮と生産活動における環境保全を展開し、社会に信頼される企業でありたいと考えています。

引き続き当社の環境活動にご理解をお願い致します。



代表取締役社長 長谷川 宗平

Environmental conservation as part of our business activities

Today, companies are strongly required to fulfill their corporate social responsibilities in areas such as environmental protection and legal compliance, and it is increasingly important to carry out well-balanced corporate activities in various aspects of business. Since its founding, Daishinku has always continued its activities to help create an affluent, electronics-oriented society.

As part of our efforts for environmental conservation, we have issued regular environmental reports. We are pleased to present our fourth Environmental Report, which summarizes our environmental activities and achievements during the period 2004 to 2006.

New laws and regulations regarding hazardous substances in electrical and electronic equipment have come into effect in Europe, and environment-friendly products are in demand in the global market. The crystal device market is an important element that supports the digital network society. As a crystal device manufacturer, we are committed to incorporating environmental considerations into all aspects of our operations, from product design and manufacturing to distribution. We thus will continue striving to be a company that is truly trusted by customers and society.

We sincerely hope for your continued support and understanding of our environmental efforts.

大真空グループ環境方針

— 環境理念 —

大真空は環境保全活動を重要な経営課題の一つと捉え、環境と調和する企業活動を通して、持続的に発展可能な社会の創造に貢献します。

— 方針 —

- (1)水晶応用製品の開発及び製造等にかかわる企業活動全ての領域において、地球環境保全に対する取り組みを推進します。
- (2)以下の活動により汚染の予防に努めます。
 - a) 有害化学物質の削減に取り組み、環境に配慮した製品を提供します。
 - b) 廃棄物の抑制及びリサイクルに取り組みます。
 - c) 地球温暖化防止のため、省エネルギー活動に取り組みます。
- (3)環境に関する法律、基準、協定及び当社が同意したその他の要求事項を順守します。
- (4)この環境方針に基づき環境目的及び目標を設定し、活動を推進するとともに定期的な見直しを行ない、環境マネジメントシステムの継続的改善を図ります。
- (5)教育訓練や啓蒙活動を通じて環境方針を当社で働く人及び当社の為に働く全ての人が周知し、環境保全に対する自覚と意識の向上に取り組みます。
- (6)環境保全活動に関する情報を公開します。

DAISHINKU GROUP ENVIRONMENTAL POLICY

— Environment Concept —

Daishinku recognizes the environmental conservation activities as an important business subject, and contributes to creating the society that is possible to develop continually, through activities which are harmonious with the environment.

— Policy —

To achieve the above aim, Daishinku will:

- 1) Promote to preserve the global environment at each stage of our business activities, including the development and production of our crystal-applied products.
- 2) Commit to prevent pollution through the following activities:
 - a. Reduce the use of hazardous chemical substances and develop products while paying close attention to the impact on the environment.
 - b. Reduce and recycle wastes.
 - c. Prevent global warming by carrying out energy conservation activities.
- 3) Observe relevant environmental laws, standards, agreements and any other requirements to which the company subscribes.
- 4) Regularly set and review environmental objectives and targets to achieve continuous improvement in our environmental management system.
- 5) Implement environmental education and awareness-raising programs to ensure that all employees who work at our company and those who work for our company thoroughly understand our environmental policies and raise their awareness about environmental protection.
- 6) Ensure that our information of environmental conservation activities is available to the public.

Environmental Management System

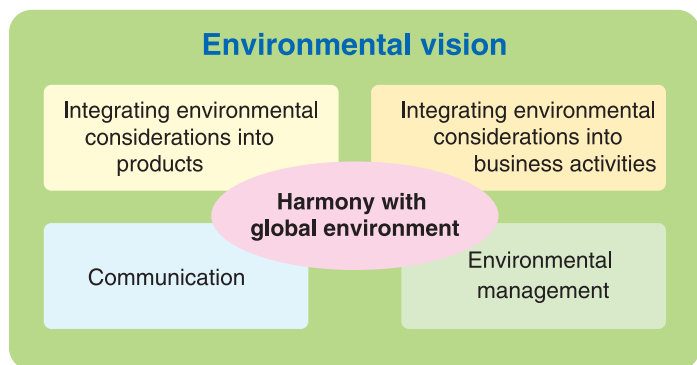
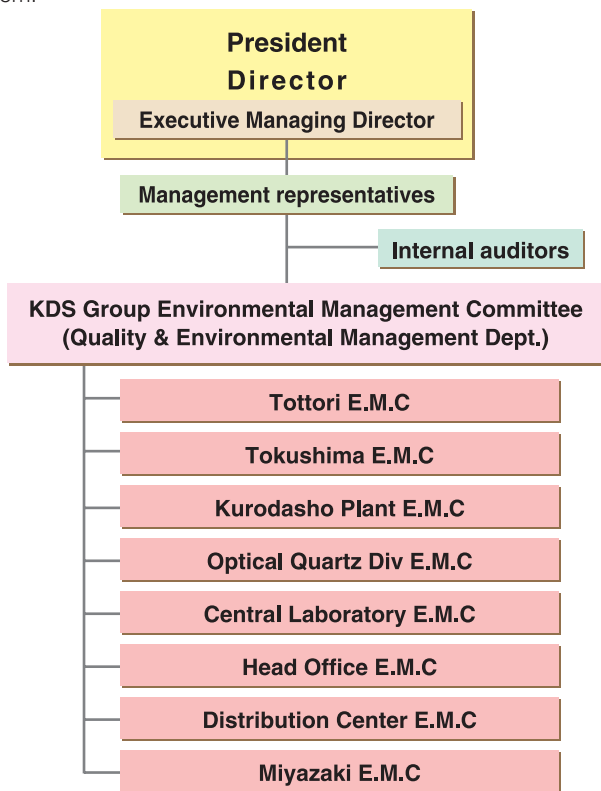
Organizational Structures

As part of its commitment to environmentally responsible operations, Daishinku has established an Environmental Management System, under which Environmental Management Committees have been set up at its eight major business sites in Japan.

Each Environmental Management Committee sets specific environmental objectives and targets and promotes environmental protection toward achieving those objectives and targets.

As an organization to exercise overall coordination of these Environmental Management Committees, the KDS Group Environmental Management Committee has also been established. Under this environmental management system, we are pursuing continuous improvement of our environmental performance by repeating the PDCA cycle both group-wide and at individual business sites.

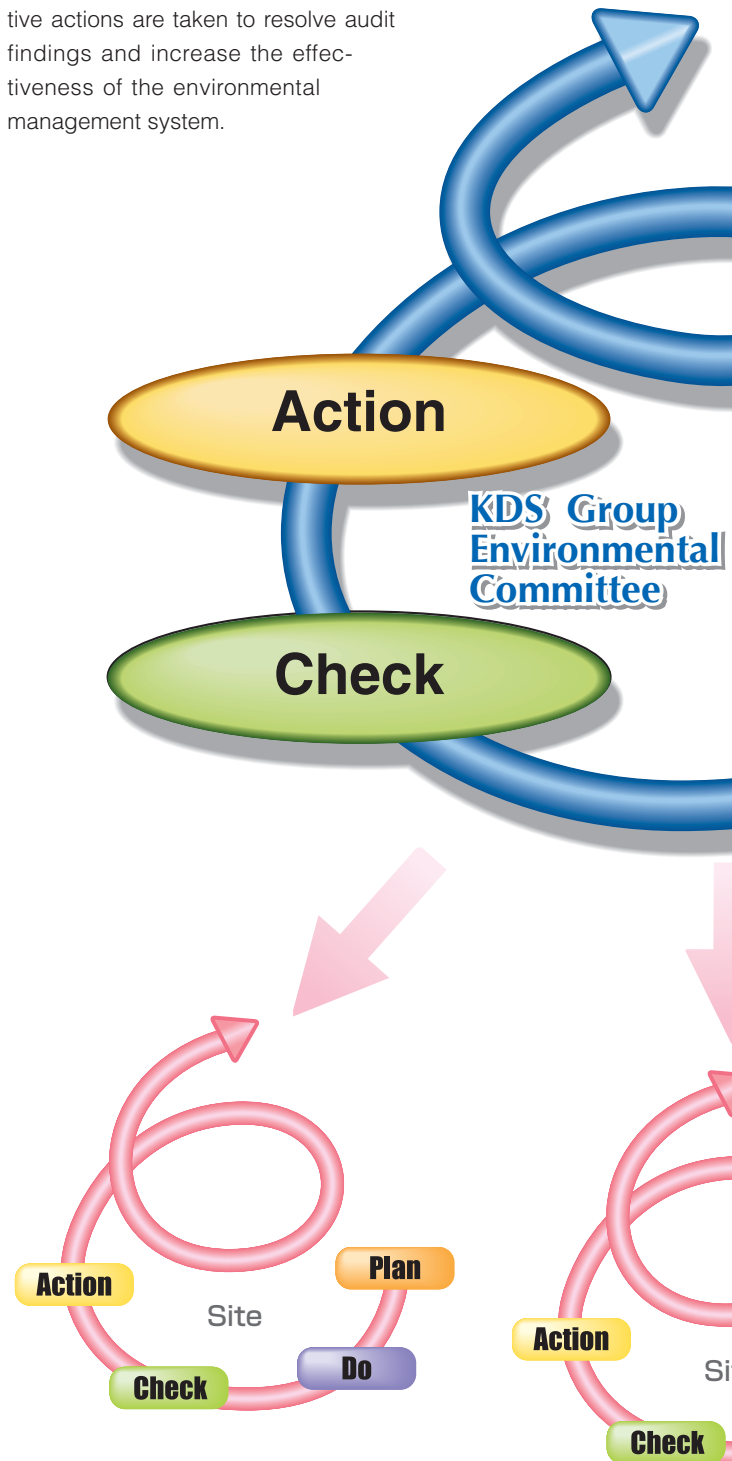
In October 2005, Miyazaki Plant was reorganized into KYUSHU DAISHINKU CORP. Accordingly, the Miyazaki Environmental Management Committee was established within KYUSHU DAISHINKU CORP. to function as part of Daishinku's environmental management system.



Internal Environmental Audit

Daishinku regards internal environmental audits as an important element to improve the implementation and operation of the environment management system. Internal environmental audits are conducted once a year at all domestic business sites by the internal environmental audit team.

The internal environmental audit checks and assesses the implementation status of the environmental management system and the status of compliance with ISO 14001 requirements and other applicable laws and regulations. For nonconformance identified in the audit, appropriate corrective actions are taken to resolve audit findings and increase the effectiveness of the environmental management system.



ISO Certification Status

Daishinku has continued group-wide efforts to acquire ISO 14001 certification, an internationally standardized assessment of environmental management systems. The Head Office and all five domestic production plants received this certification in January 2000; our overseas production facilities, Tianjin KDS Corp. and P.T. KDS Indonesia, obtained the certification in November 2000 and December 2004, respectively.

In 2005, these domestic and overseas plants and offices underwent further inspections and completed transition to the 2004 version of ISO 14001 certification.

We are committed to pursuing environmental protection activities by implementing an environmental management system that meets ISO 14001.



Emergency Response

Each plant / office has an "Emergency Response Program" in place that specifies the procedures for dealing with possible emergencies and accidents to minimize the impact on surrounding neighborhoods.

The procedures specified in the Emergency Response Program are periodically tested to verify their effectiveness. Emergency readiness training is also provided to ensure that all employees can respond effectively to emergencies.

We also made various improvements, such as constructing a containment wall around each chemical tank, to prevent accidents and emergency situations from occurring.



Tokushima Production Div. Designated waste liquid storage area



Tokushima Production Div. Wastewater spill prevention device

Environmental Performance

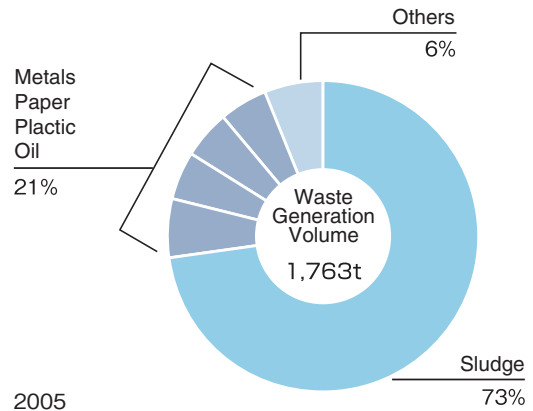
Waste Generation Reduction and Recycling

Daishinku has been endeavoring to reduce the volume of waste that goes to landfill by reducing waste generation and boosting recycling.

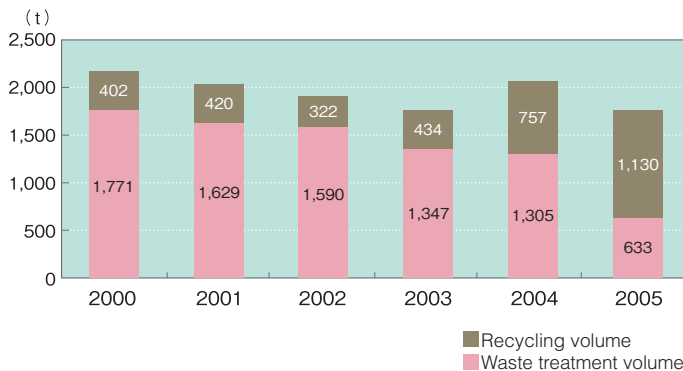
In fiscal 2004, the total volume of waste generated increased. However, due to the increase in the recycling rate, the total volume of waste disposed remained at the same level as in the previous fiscal year.

In fiscal 2005, the recycling rate (of the total waste generation) increased to 64%, thanks to our strengthened efforts.

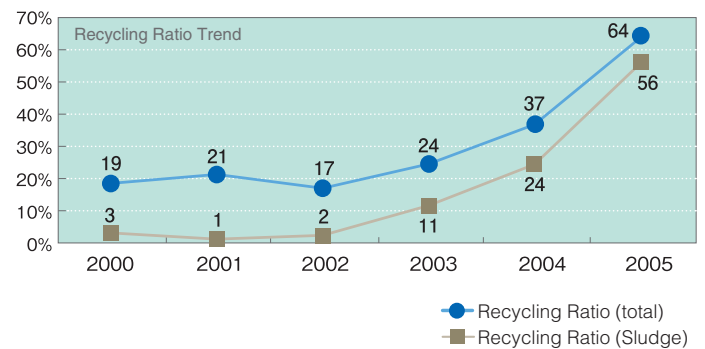
Breakdown of wastes



Waste treatment volume and Recycling volume



Promotion of sludge recycling



Pollutant Release and Transfer Register

Since 1999, Daishinku has kept track of the usage of chemical substances. In fiscal 2005, the use of chemical substances was reduced by approximately 7% from the fiscal 2004 levels.

We will continue to control hazardous chemical substances and reduce the use of such substances.

PRTR : Through this system, we calculate, tabulate, and disclose the sources and amounts of hazardous substances discharged in the environment.

Usage of Hazardous Substances / Object : Domestic Production 5 facilities

(Unit : Kg)

Number specified in Cabinet Order	Substance	2002	2003	2004	2005
283	hydrogen fluoride and its water-soluble salts	17,910	17,784	23,386	21,771
64	silver and its water-soluble compounds	2,364	2,058	1,061	1,799
25	antimony and its compounds	686	640	773	1,012
232	nickel compounds	745	1,010	747	723
230	lead and its compounds	654	641	1,232	58
	TOTAL	22,358	22,133	27,199	25,362

Correction and apology : We have acknowledged that data regarding chromium and chromium compounds contained in the Environmental Report 2003-2004 were incorrect due to an error in calculation. The incorrect data have been corrected.

Prevention against Global Warming

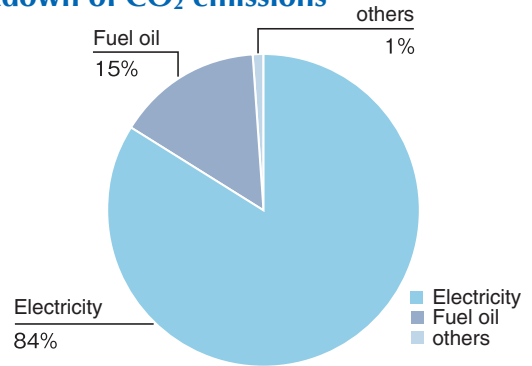
Daishinku emits greenhouse gasses, such as CO₂, during production processes.

Approximately 80% of our CO₂ emissions come from electricity use. Therefore, reducing electricity consumption will result in reduced emissions of CO₂.

Our production plants are actively promoting energy-saving activities combined with CO₂ emission reduction activities.

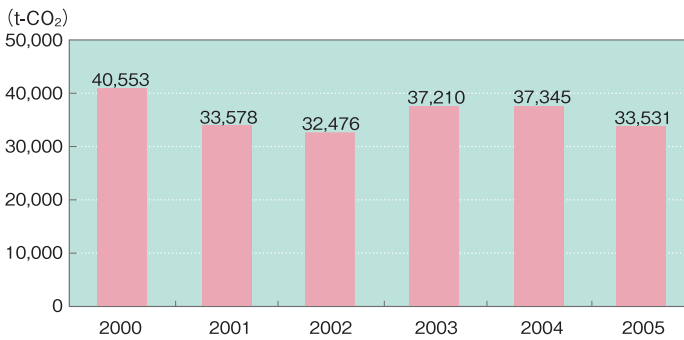
Energy-saving activities carried out at Tottori Production Division are presented in the Topics section.

Breakdown of CO₂ emissions

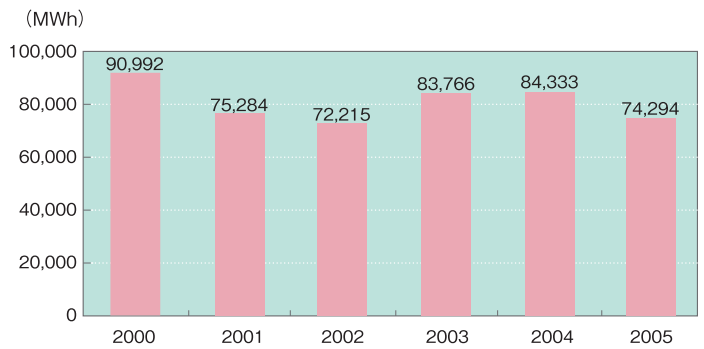


2005

CO₂ Emissions



Electric Power usage



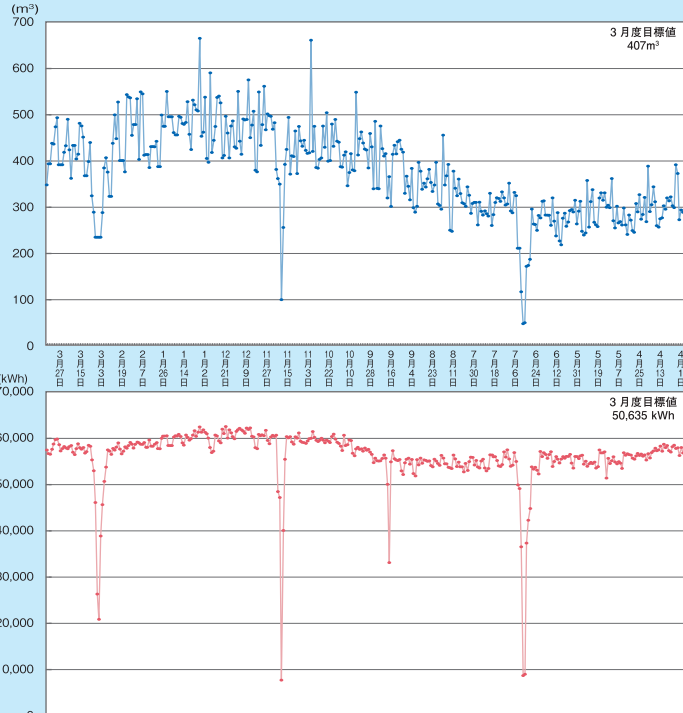
Energy-saving activities at Tottori Production Division

As part of its energy-saving efforts, the Tottori Environmental Management Committee displays graphs of the daily amounts of electricity/water consumption on the bulletin board.

㈱大真空鳥取事業所 1日エネルギー使用量 2006年3月1日分 CO₂ 排出量: 31,944Kg

1日使用量				飲料水 (m ³)				窒素ガス (Sm ³)				A重油 (ℓ)						
電力量 (kWh)	A重油 (ℓ)	飲料水 (m ³)	窒素ガス (Sm ³)	第1工場水道	第2工場水道	窒素1期ルーム	窒素2Fルーム	窒素2期ルーム	窒素ガスその他	蒸気ボイラー1号機	蒸気ボイラー2号機	蒸気ボイラー3号機	蒸気ボイラー4号機	吸収式冷凍機 A号機	吸収式冷凍機 B号機	温水ボイラー1号機	温水ボイラー2号機	温水ボイラー3号機
56,620	4,235	239	17,784	26	213	4,878	505	9,799	2,602	0	1,845	0	0	0	616	910	0	864

2F生産機械		2F照明・コンセント	2F空調	冷凍機	窒素発生装置		コンプレッサー	排水処理設備	スクラバー・排気ファン	1期生産機械	1期照明	1期熱源・ポンプ	1期空調	2期生産機械	2期照明	2期熱源・ポンプ	2期空調	第1工場
4,912	537	1,736	4,420	2,210	4,180	4,440	684	2,506	2,530	1,253	4,514	3,212	6,950	1,303	4,959	2,651	800	



43期エネルギー削減目標値及び実績

電気 (kWh)				A重油 (ℓ)			
42期使用量	43期目標値	43期実績	前年度比(%)	42期使用量	43期目標値	43期実績	前年度比(%)
4月 1,838,480	1,654,632	1,682,720	91.5	4月 134,290	120,861	115,712	86.2
5月 1,830,080	1,647,072	1,718,880	93.9	5月 120,089	108,080	111,999	93.3
6月 1,952,800	1,757,520	1,787,040	91.5	6月 169,780	152,802	163,825	96.5
7月 2,082,960	1,874,664	1,866,160	89.6	7月 227,055	204,350	220,563	97.1
8月 2,063,920	1,857,528	1,749,600	84.8	8月 210,497	189,447	207,338	98.5
9月 1,979,600	1,781,640	1,760,720	88.9	9月 181,038	162,934	181,002	100.0
10月 1,960,640	1,764,576	1,680,000	85.7	10月 214,446	193,001	144,206	67.2
11月 1,861,120	1,675,008	1,626,080	87.4	11月 142,059	127,853	121,070	85.2
12月 1,784,000	1,605,600	1,637,200	91.8	12月 117,896	106,106	130,375	110.6
1月 1,609,200	1,448,280	1,594,320	99.1	1月 117,837	106,053	135,480	115.0
2月 1,569,760	1,412,784	1,532,160	97.6	2月 111,260	100,134	123,934	111.4
3月 1,744,080	1,569,672	1,753,280	100.5	3月 112,593	101,334	123,323	109.5
合計 22,276,640	20,048,976	20,388,160	91.5	合計 1,858,840	1,672,956	1,778,827	95.7

水道 (m ³)				窒素ガス (Sm ³)			
42期使用量	43期目標値	43期実績	前年度比(%)	42期使用量	43期目標値	43期実績	前年度比(%)
4月 13,795	12,416	12,164	88.2	4月 700,788	630,709	579,730	82.7
5月 11,535	10,382	13,134	113.9	5月 625,653	563,088	579,383	92.6
6月 15,154	13,639	14,396	95.0	6月 733,108	659,797	523,056	71.3
7月 19,340	17,406	14,470	74.8	7月 954,189	858,770	476,686	50.0
8月 19,600	17,640	13,391	68.3	8月 720,692	648,623	457,790	63.5
9月 18,102	16,292	12,735	70.4	9月 639,203	575,283	507,214	79.4
10月 16,613	14,962	11,919	71.7	10月 677,211	609,490	468,925	69.2
11月 15,414	13,873	10,221	66.3	11月 716,299	644,669	545,535	76.2
12月 14,100	12,690	8,737	62.0	12月 654,580	589,122	483,694	73.9
1月 13,141	11,827	7,998	60.9	1月 504,914	454,423	463,899	91.9
2月 14,277	12,849	8,080	56.6	2月 527,448	474,703	476,218	90.3
3月 14,029	12,626	9,207	65.6	3月 601,892	541,703	538,532	89.5
合計 185,100	166,590	136,452	73.7	合計 8,055,977	7,250,379	6,100,662	75.7

Environmental Consideration for Products

Environmental care through energy-saving design

Prevention of global warming is one of the greatest challenges facing the world. Being well aware of this, Daishinku has made considerable efforts to reduce operating power consumption of its products. Energy-efficient electronic components will reduce the power requirements of electric appliances, leading to significant savings in energy and subsequent reduction in CO₂ emissions.

The driving voltage of our crystal oscillators has been reduced from 5 V to 1.8 V over the last 16 years from 1990 to 2006. Reduced driving voltage, combined with increased performance of oscillation circuit, has led to a reduction in electric power consumption of less than one thirty-fifth (1/35), from 0.075 W to 0.0021 W.

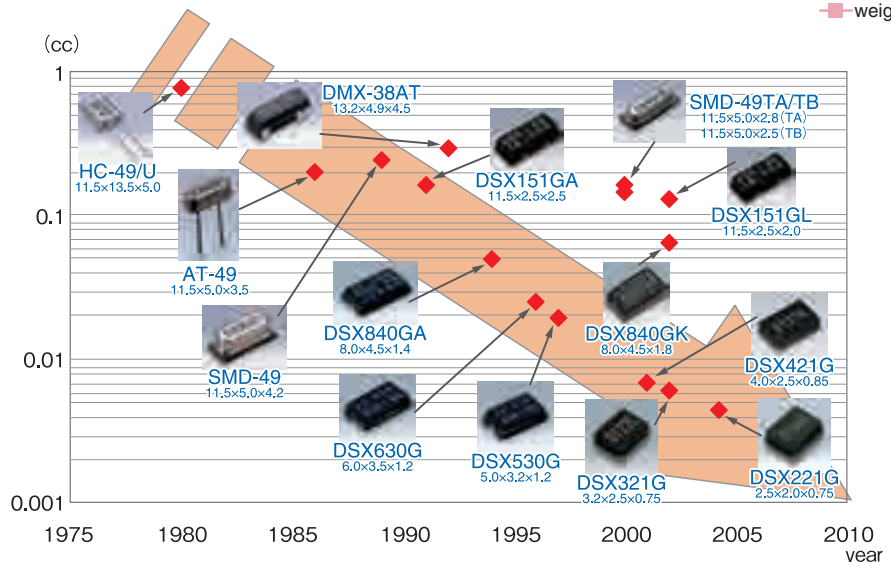
Miniaturization of products

As part of our resource-saving effort, we are constantly striving to reduce the size of the crystal products, because downsizing the products will reduce the material usage.

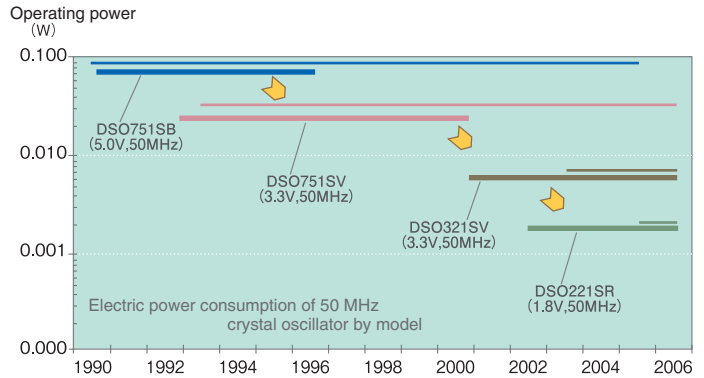
Daishinku introduced a surface-mounted crystal resonator, the DSX151 series, to the market in 1991. As a result of our continuous effort toward miniaturization, in 2005 the volume was reduced to approximately one-fiftieth (1/50), and the weight was reduced to approximately one-fortieth (1/40) of the original model.

Smaller size leads to less weight, resulting in reduced material usage.

Progress in Miniaturization by Year

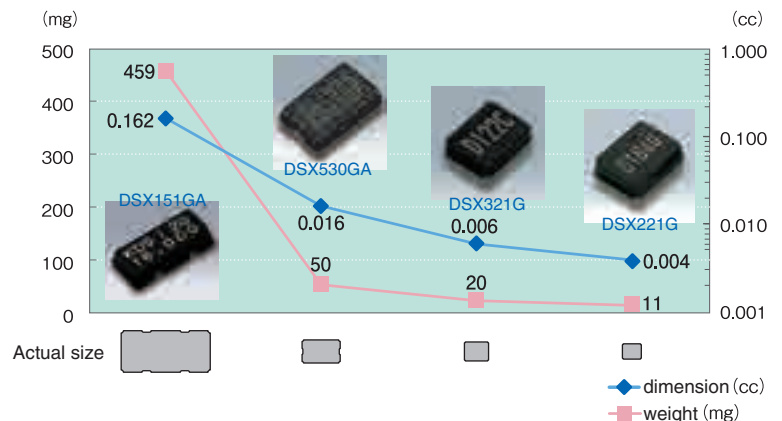


Power-saving efforts



※ Reduction in electric power consumption of crystal oscillator by model. Values shown on the chart are average values of 50 MHz crystal oscillators. Oscillator power consumption is proportional to output frequency.

Changes in Volume and Weight with Increasing Miniaturization



TOPICS Connection of energy-efficient electronic components and global warming

Reducing the power consumption of electronic components contributes to saving energy used by electrical appliances at homes and offices.

Part of the electricity we use is produced by a thermal power plant, which emits CO₂ while generating electricity. Therefore, reducing the power consumption of electronic components saves energy, leading to reduction in CO₂ emissions.

Reduction in the use of hazardous chemical substances

In recent years, reduction in the use of hazardous chemical substances has been strongly demanded, and laws and regulations relating to hazardous substances have been strengthened both in Japan and abroad.

In Europe, new regulations regarding hazardous substances, such as the WEEE Directive and RoHS Directive, have come into effect. With the RoHS Directive taking effect in July 1, 2006, the use of lead, mercury, cadmium, hexavalent chromium and brominated flame retardants (PBB, PBDE) is prohibited in principle.

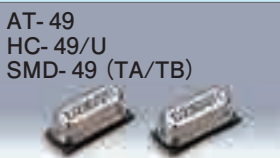
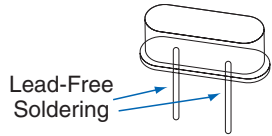
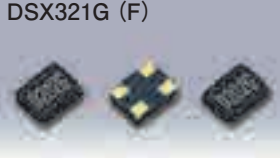
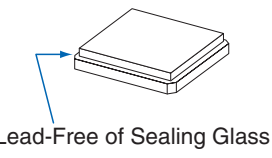

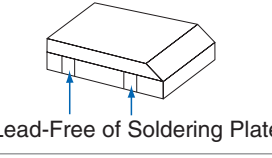

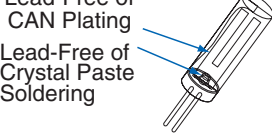
To comply with relevant laws and regulations and meet customer demands, Daishinku has been working on developing and delivering RoHS-compliant and lead-free products.

The WEEE (Waste Electrical and Electronic Equipment) Directive

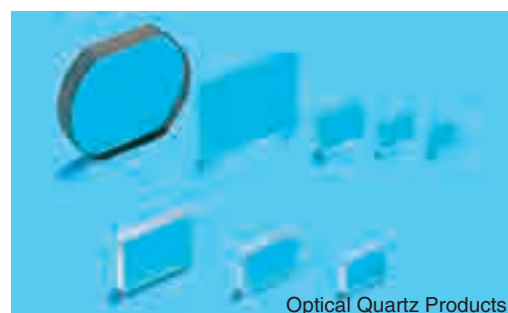
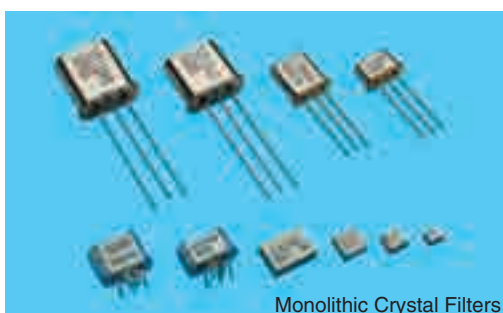
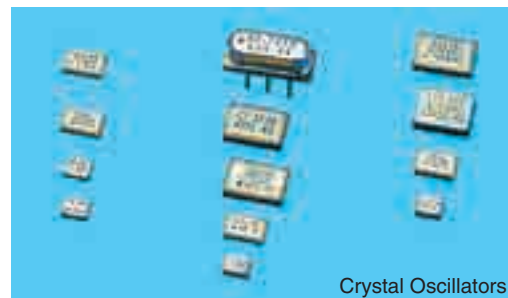
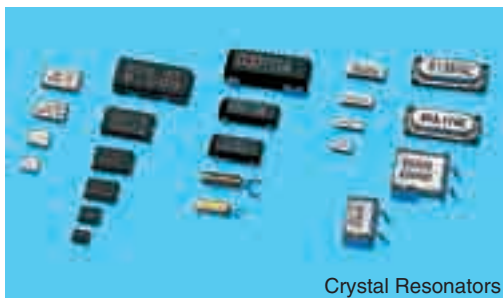
A European law that aims to reduce waste arising from electrical and electronic equipment (EEE) and to encourage re-use and recycling of EEE.

The RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) Directive

A European law that aims to protect human health through the restricted use of certain hazardous substances.

Lead-free products	Changes	2003	2004	2005	2006
 AT-49 HC-49/U SMD-49 (TA/TB)	 Lead-Free Soldering	2002.1			
 DSX321G (F)	 Lead-Free of Sealing Glass		2003.11		
 DMX-26S DMX-26 DMX-38	 Lead-Free of Soldering Plate			2005.4	
 DT-26/38 DT-261/381	 Lead-Free of CAN Plating Lead-Free of Crystal Paste Soldering				2004.4

Product line



Environmental Impact

Business Activity Interaction with the Environment

We design, produce and supply quartz devices for various electronic devices such as mobile phones and personal computers. At each stage of these business activities, we use resources such as electric power and water. In the production procedure, in addition to our finished product, we create waste and wastewater, which are released into the external environment. We recognize the importance to understand and minimize the various environmental impacts that occur as a result of our business activities.

INPUT

Energy	Icon	Electric power	
		('04)	('05)
Fuel oil		('04)	84,333 MWh
		('05)	74,294 MWh
City gas		('04)	1,974 kL
		('05)	1,968 kL
Kerosene		('04)	16,302 m ³
		('05)	18,584 m ³
Liquefied petroleum gas		('04)	15 kL
		('05)	14 kL

Water	Icon	Tap water	
		('04)	('05)
Ground water		('04)	230 km ³
		('05)	179 km ³
		('04)	150 km ³
		('05)	178 km ³

Chemicals	Icon		
		('04)	('05)
			27,199 kg
			25,362 kg

Raw Materials	Icon			
		Crystal raw material		
		Abrasive		
		Alcohol		
		Component		
Others				

OUTPUT

Gas	Icon	CO ₂	
		('04)	('05)
			37,345 t-CO ₂
			33,531 t-CO ₂

Water Quality	Icon	Wastewater	
		('04)	('05)
		227 km ³	208 km ³
Chemical Oxygen Demand		('04)	488 kg
		('05)	530 kg
Biochemical Oxygen Demand		('04)	135 kg
		('05)	220 kg

Waste	Icon	Waste generation Volume	
		('04)	('05)
		2,062 t	1,763 t
		Waste treatment Volume	
		1,305 t	633 t
		Recycling volume	
757 t	1,130 t		

Products	Icon			
		Crystal Resonators		
		Crystal Oscillators		
		Monolithic Crystal Filters		
Optical Quartz Product				



Observance of Laws and Regulations

Tokushima Environmental Management Committee

Water quality (First effluent)

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
Hydrogen-ion concentration	pH	5.8 ~ 8.6	5.9 ~ 8.4	6.5	6.9
Biochemical Oxygen Demand	mg/l	20	18	0.9	1.2
Chemical Oxygen Demand	mg/l	20	18	2.6	3.8
Suspended matter amount	mg/l	30	27	2.7	5.0
n-hexane	mg/l	5.0	4.5	0.02	0.03
N/nitrogen content	mg/l	40	36	18	23
P / phosphorus content	mg/l	2.5	2.25	0.7	1.4
F / fluorine content	mg/l	5.0	4.5	< 0.08	< 0.08

Water quality (Second effluent)

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
Hydrogen-ion concentration	pH	5.8 ~ 8.6	5.9 ~ 8.4	6.4	6.8
Biochemical Oxygen Demand	mg/l	40	18	0.6	0.7
Chemical Oxygen Demand	mg/l	40	18	3.2	4.4
Suspended matter amount	mg/l	30	27	3.8	7.0
n-hexane	mg/l	3.0	2.7	<1.0	<1.0
N/nitrogen content	mg/l	40	36	23	33
P / phosphorus content	mg/l	2.5	2.25	0.8	1.2
F / fluorine content	mg/l	5.0	5.0	3.4	4.4

Gas

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
NOx (nitrogen compound)	cm ³ /m ³	260	234	70.5	81
SOx (sulfur compound)	m ³ N/h	K=17.5	K=15.75	2.00	2.66
Soot and dust	g/m ³ N	0.308	0.278	0.009	0.015

Tottori Environmental Management Committee

Water quality

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
Hydrogen-ion concentration	pH	5.0 ~ 9.0	5.2 ~ 8.8	7.0	7.2
Suspended matter amount	mg/l	600	540	2.6	4.0
n-hexane	mg/l	5.0	4.5	0.6	0.7
N/nitrogen content	mg/l	380	342	72	92
P / phosphorus content	mg/l	32	28.8	0.05	0.05
F / fluorine content	mg/l	8.0	7.2	4.0	4.7
Cr / chromium content	mg/l	2.0	1.8	<0.2	<0.2
Pb / lead	mg/l	0.1	0.09	<0.01	<0.01

Gas

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
NOx (nitrogen compound)	cm ³ /m ³	150	135	88.4	149.5
SOx (sulfur compound)	m ³ N/h	K=17.5	K=15.75	0.88	2.2
Soot and dust	g/m ³ N	0.25	0.225	0.025	0.08

Optical Quartz Div. Environmental Management Committee

Water quality

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
Hydrogen-ion concentration	pH	5.8 ~ 8.6	5.9 ~ 8.4	7.0	8.0
Biochemical Oxygen Demand	mg/l	160	144	4.6	14
Chemical Oxygen Demand	mg/l	160	144	5.8	15
Suspended matter amount	mg/l	200	180	1.6	4.2
n-hexane	mg/l	5.0	4.5	< 0.5	< 0.5
N / nitrogen content	mg/l	120	108	5.7	8.4
P / phosphorus content	mg/l	2.5	2.25	0.02	0.04

Kurodasho Plant Environmental Management Committee

Water quality

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
Hydrogen-ion concentration	pH	5.8 ~ 8.6	5.9 ~ 8.4	7.4	7.8
Biochemical Oxygen Demand	mg/l	160	144	1.8	4.5
Chemical Oxygen Demand	mg/l	160	144	4.75	9.0
Suspended matter amount	mg/l	200	180	2.7	5.0
n-hexane	mg/l	5.0	4.5	<0.5	<0.5

Miyazaki Environmental Management Committee

Water quality (north side gutter)

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
Hydrogen-ion concentration	pH	5.8 ~ 8.6	5.9 ~ 8.4	8.0	9.2
Biochemical Oxygen Demand	mg/l	160	144	1.5	3.2
Chemical Oxygen Demand	mg/l	160	144	2.0	3.8
Suspended matter amount	mg/l	200	180	4.4	8.0
n-hexane	mg/l	5.0	4.5	<0.5	<0.5
N/nitrogen content	mg/l	120	108	3.3	4.7
F / fluorine content	mg/l	8.0	7.2	0.1	0.1

Water quality (south side gutter)

Items	Unit	Reg.V.	Self-reg.V.	Msd.V.	
				Ave.	Max.
Hydrogen-ion concentration	pH	5.8 ~ 8.6	5.9 ~ 8.4	7.6	8.6
Biochemical Oxygen Demand	mg/l	160	144	10.3	22
Chemical Oxygen Demand	mg/l	160	144	7.3	12
Suspended matter amount	mg/l	200	180	5.5	16
n-hexane	mg/l	5.0	4.5	<0.5	<0.5
N/nitrogen content	mg/l	120	108	19	58
F / fluorine content	mg/l	8.0	7.2	0.8	2.2

Note

Listed measurement values are based on results measured from April 2005 through March 2006

According to the Tottori Environmental Management Committee, NOx levels exceeded our voluntary standard in October 2005. The Miyazaki Environmental Management Committee reported that the hydrogen-ion concentration of water samples taken on July 2005 from the gutter on the north side of the plant exceeded the legal standard, and that of water samples taken on the same day from the gutter on the south side of the plant exceeded our voluntary standard.

Both Committees have identified the causes for exceeding the standards and taken preventive measures. After implementing measures, the Committees carried out measurements and confirmed that there was no problem. Daishinku Group will strengthen the emission/discharge standard compliance management system to ensure that all production plants comply with applicable laws and regulations.

Overseas Activities

Environmental activities at overseas production bases

Daishinku Group has production facilities in China and Indonesia. Both facilities have obtained ISO 14001 certification and have been actively involved in environmental protection activities tailored to individual regional characteristics.

Outline of TIANJIN KDS Corp.

Production facility	TIANJIN KDS CORP.
Location	China / Tianjin
Business activity	Manufacture of tuning fork crystal resonators, crystal resonators, and crystal-applied products
Numbers of employees	3,087
Site area	45,000m ²
Floor space	42,050m ²
Water usage	583,703m ³
Electric power consumption	57,100,000kWh
Amount of CO ₂ emissions	22,253 t-CO ₂



Remarks :

The data on electric power/water consumption and CO₂ emissions are actual results from April 2005 to March 2006; other data are as of March 2006.

Outline of PT.KDS INDONESIA

Production facility	PT.KDS INDONESIA
Location	Indonesia / Jakarta
Business activity	Manufacture of crystal resonators
Numbers of employees	1,736
Site area	33,000m ²
Floor space	29,000m ²
Water usage	76,171m ³
Electric power consumption	30,010,000kWh
Amount of CO ₂ emissions	11,818 t-CO ₂



Remarks :

The data on electric power/water consumption and CO₂ emissions are actual results from April 2005 to March 2006; other data are as of March 2006.

Contribution activities in local communities

As a company committed to taking root in and contributing to the local community, Daishinku actively engages in cleanup activities around its plants and offices. Each plant and office holds cleaning campaigns to keep its surrounding environment clean. In June, the Tokushima Environmental Management Committee carried out a cleaning campaign of the neighborhood area.



Tottori Production Division participated in the "Tottori Sand Dunes Cleanup" organized in April by the Tottori Municipal Government. We participate in the cleaning campaign of Tottori Sand Dunes every year, but the amount of garbage strewn around the dunes seems not to have been reduced. It is considered necessary to focus efforts on preventing garbage generation in the future. We will continue striving to be a company that is trusted by local residents through active engagement in local environmental cleanup activities.

Our commitment to environmental protection in compliance with ISO 14001-2004 version

Six years have passed since we first obtained ISO 14001 certification. We are pleased to announce that we have undergone transition inspections and completed transition to the 2004 version of ISO 14001 in December 2005.

In addition to Japan, we engage in manufacturing operations in four overseas countries. All plants and offices have been vigorously involved in environmental activities. We believe that continuous group-wide efforts to achieve our environmental objectives and targets are a part of an important social contribution regarding global environmental issues.

This environmental report summarizes our environmental activities and achievements during the period from 2004 to 2006. We hope that this report will provide better understanding of our environmental conservation activities. We sincerely ask for your continued support and guidance for our environmental management.



Executive Managing Director
Director Kenji Nakazawa

The Environmental Report 2005-2006 can be downloaded from Daishinku's website.

<http://www.kds.info/>

In addition to the environmental report, our website offers other information.





DAISHINKU CORP.

<http://www.kds.info/>

本報告書についてのご意見やご質問は下記までご連絡ください。

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