



# Environmental Data Book 2012-2013

**ROHM Co., Ltd.**

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## ●Period covered by this report

**Fiscal year 2011 : April 1,2011 to March 31,2012**

**Fiscal year 2012 : April 1,2012 to March 31,2013**

## ●Scope of this Report

The subject of this report is 18 locations: ROHM and its affiliates(9 domestic locations and 8 overseas locations). 3 companies of LAPIS Semiconductor Group are included in the affiliates.

Because RMT stopped by a flood disaster in 2011,the data is not added up from fiscal year 2011 to 2012.

## ● Abbreviated Names of Overseas Affiliates

<b>REPI</b>	: ROHM Electronics Philippines, Inc.	(Philippines)
<b>RIST</b>	: ROHM Integrated Systems (Thailand) Co., Ltd.	(Thailand)
<b>RSC</b>	: ROHM Semiconductor (China) Co., Ltd.	(China)
<b>REDA</b>	: ROHM Electronics Dalian Co., Ltd.	(China)
<b>RWEM</b>	: ROHM-Wako Electronics (Malaysia) Sdn. Bhd.	(Malaysia)
<b>RMPI</b>	: ROHM Mechatech Philippines, Inc.	(Philippines)
<b>RMT</b>	: ROHM Mechatech (Thailand) Co., Ltd.	(Thailand)

## Environmental Policy

### ROHM Environmental Policy

**ROHM's everlasting conscientiousness to preserve the global environment contributes to the healthy existence of humanity and to the continued prosperity of the company**

1. Conserve energy by initiating innovative methods in all corporate activities.
2. Develop environmentally-conscious products that minimize the environmental burden by employing responsible processes throughout the life cycle of each product.
3. Give priority to the procurement of materials and products that have the least levels of adverse impact on the environment.
4. Comply with international and national environmental laws and regional agreements.
5. Endeavor to train employees and encourage our constituents to actively care for their surroundings and the global environment.
6. Develop positive relationships with the community through contributions to the local environment and the proper disclosure of environmental data.

ROHM established ROHM Environmental Policy applicable to the entire group company on October 20, 1997 based on the environmental international standard ISO 14001. Moreover, corresponding to the amendments in ISO 14001:2004(2nd edition:revised in 2004), we revised ROHM Environmental Policy completely in a clear, concise and accurate content furthermore on April 1, 2006.

### ROHM's Action to Global Environmental Conservation

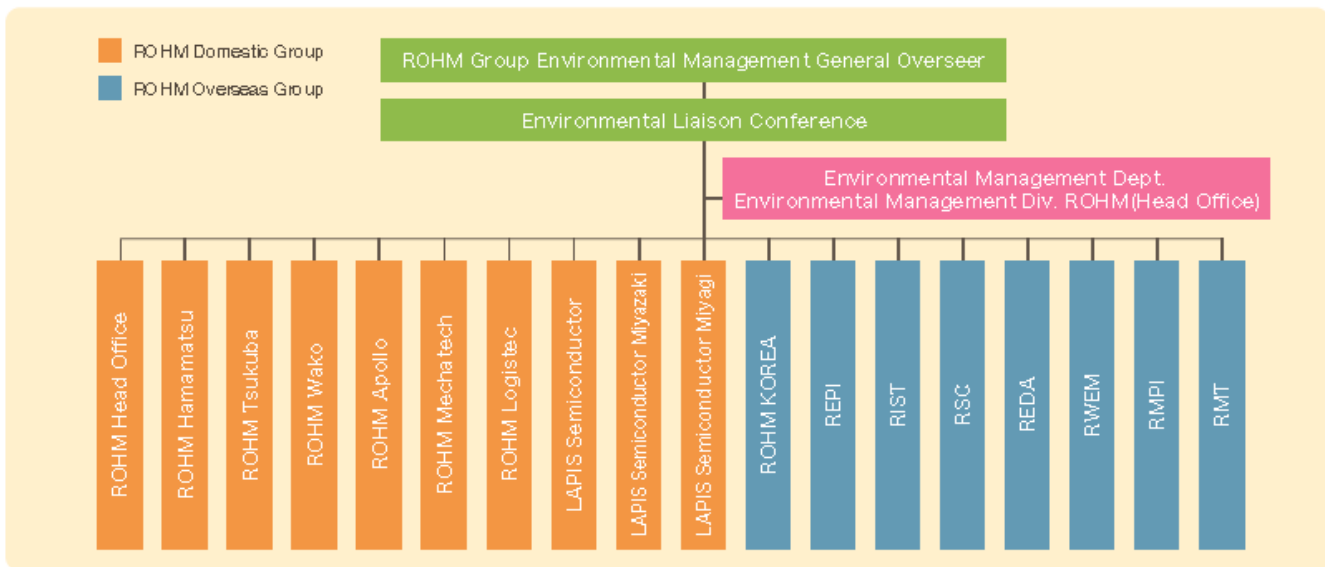


ROHM takes various actions to protect global environment based on ROHM Environmental Policy. We think that a corporate activity that contributes to the environment is not only producing environmentally-conscious products but even reducing the environmental burden throughout production process. Especially regarding the prevention of global warming, we take actions enthusiastically to reduce CO<sub>2</sub> and other greenhouse gases generated from ROHM corporate activities. Moreover, hereafter, we'll establish long-term objectives and targets taking account of biodiversity, and take actions to realize sustainable society.

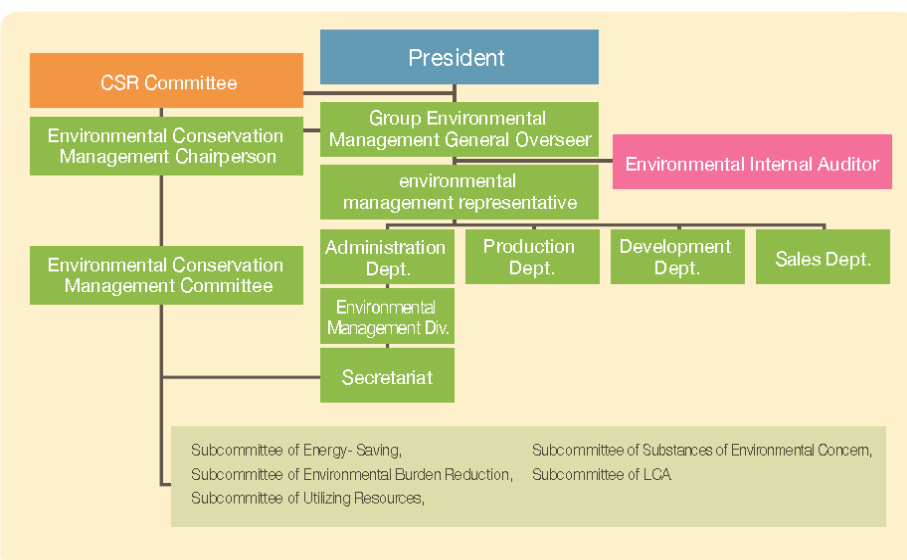
# Environmental Management System

ROHM has expanded the ROHM Group common environmental management system, which is based on the international environmental standard ISO 14001, to the entire Group, and all of its employees are making efforts toward continual improvement of the environment. The ROHM Group's environmental actions expand ceaselessly as consolidated basis with a global viewpoint.

## ROHM Group Environmental Management Promotion System



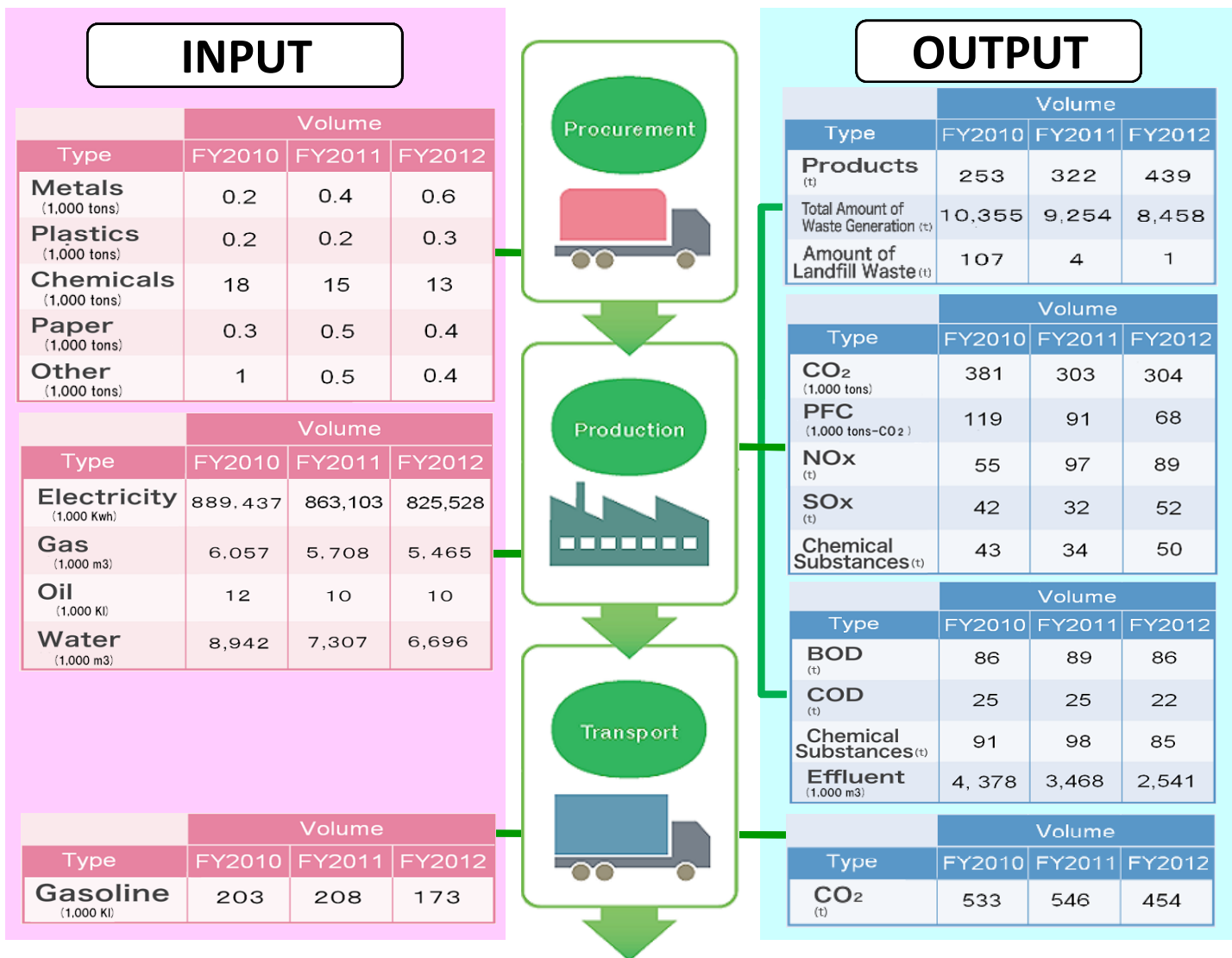
## ROHM Environmental Management Promotion System



The environmental management promotion organization in ROHM Head Office started as the organization which conducted actions mainly about antipollution in 1990 and it was reconstructed into the new promotion organization that took actions about environmental conservation taking account of global environment. In this organization, ROHM environmental conservation management committee which deliberates the major plan and policy about ROHM environmental activities, and seven subcommittees which constitute it, have played the important role. The subcommittee is composed of the experts, the engineers, and the related national qualification holders of the field, and that subcommittee chairperson serves as a committee member of ROHM environmental conservation management committee. The committee and subcommittee meeting are held once a month.

# Environmental Burden Highlights

## Domestic Group



<INPUT>

- ◆ Electricity : Amount of electricity purchased from electric power company
- ◆ Gas : Usage of city gas and LPG
- ◆ Oil : Usage of heavy oil, light oil and kerosene
- ◆ Water : Usage of service water, industrial water and ground water

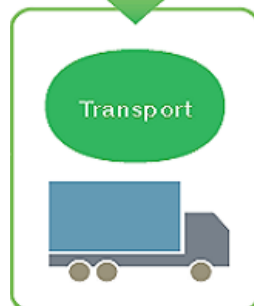
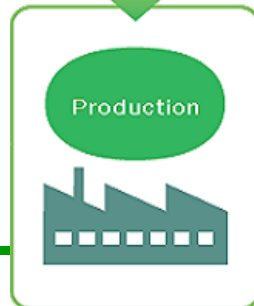
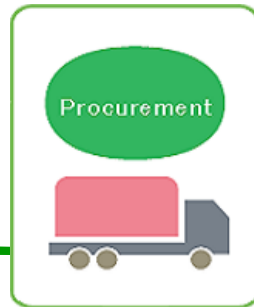
<OUTPUT>

- ◆ CO<sub>2</sub> : CO<sub>2</sub> emission generated by the use of electricity, gas and oil
- ◆ NO<sub>x</sub> : Nitrogen oxide emission generated by the burning of gas and oil
- ◆ SO<sub>x</sub> : Sulfur oxide emission generated by the burning of oil
- ◆ BOD : Biochemical Oxygen Demand emission
- ◆ COD : Chemical Oxygen Demand emission

## INPUT

Type	Volume		
	FY2010	FY2011	FY2012
<b>Metals</b> (1,000 tons)	8	3	3
<b>Plastics</b> (1,000 tons)	5	4	3
<b>Chemicals</b> (1,000 tons)	6	3	2
<b>Paper</b> (1,000 tons)	2	2	1
<b>Other</b> (1,000 tons)	1	0.7	0.4

Type	Volume		
	FY2010	FY2011	FY2012
<b>Electricity</b> (1,000 Kwh)	600,174	569,862	568,465
<b>Gas</b> (1,000 m3)	246	226	158
<b>Oil</b> (1,000 Kl)	28	15	5
<b>Water</b> (1,000 m3)	4,576	3,907	3,534



## OUTPUT

Type	Volume		
	FY2010	FY2011	FY2012
<b>Products</b> (t)	11,110	8,286	7,470
Total Amount of Waste Generation (t)	7,012	6,269	5,349
Amount of Landfill Waste (t)	796	797	623

Type	Volume		
	FY2010	FY2011	FY2012
<b>CO<sub>2</sub></b> (1,000 tons)	326	260	231
<b>NO<sub>x</sub></b> (t)	870	247	* 2
<b>SO<sub>x</sub></b> (t)	598	182	* 0.3
<b>Chemical Substances</b> (t)	18	20	16

\*The reduction effect of CO<sub>2</sub> is achieved by stopping cogeneration and decreasing use of the heavy oil at REPI in September, 2011

Type	Volume		
	FY2010	FY2011	FY2012
<b>BOD</b> (t)	15	12	12
<b>COD</b> (t)	75	61	45
<b>Chemical Substances</b> (t)	2	3	0.5
<b>Effluent</b> (1,000 m3)	1,636	1,860	1,677

### <INPUT>

- Electricity : Amount of electricity purchased from electric power company
- Gas : Usage of city gas and LPG
- Oil : Usage of heavy oil, light oil and kerosene
- Water : Usage of service water, industrial water and ground water

### <OUTPUT>

- CO<sub>2</sub> : CO<sub>2</sub> emission generated by the use of electricity, gas and oil
- NO<sub>x</sub> : Nitrogen oxide emission generated by the burning of gas and oil
- SO<sub>x</sub> : Sulfur oxide emission generated by the burning of oil
- BOD : Biochemical Oxygen Demand emission
- COD : Chemical Oxygen Demand emission

# Environmental Accounting

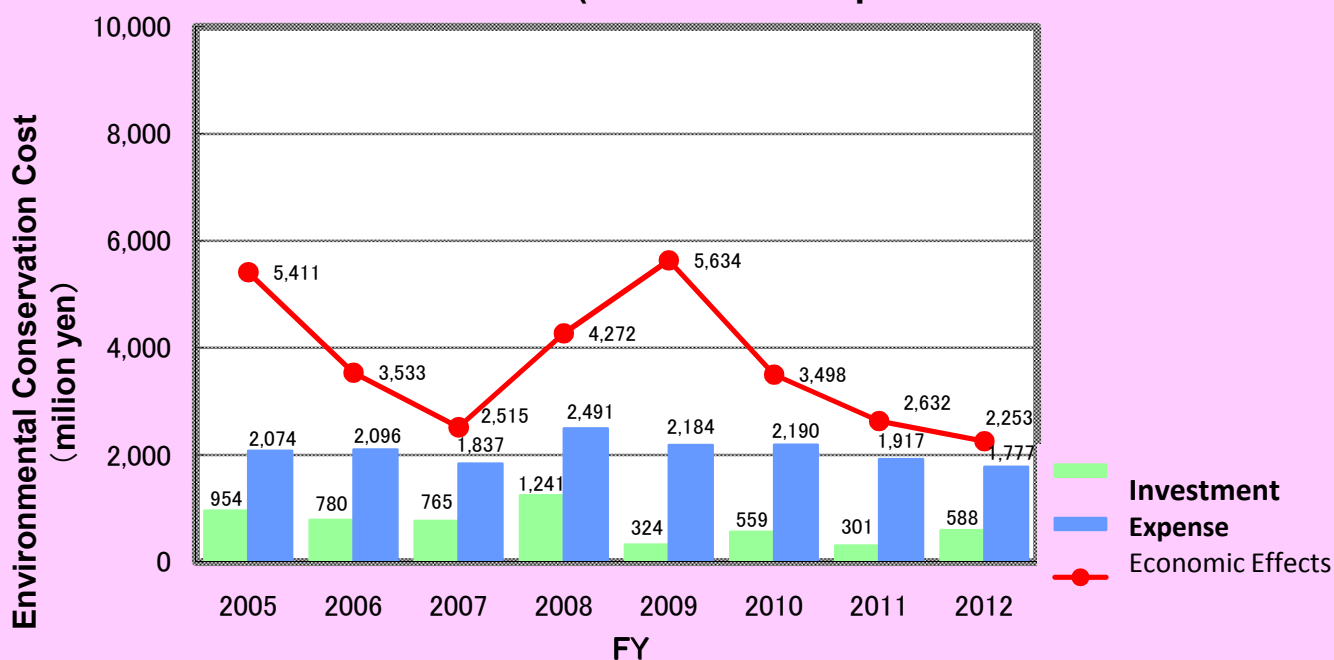
## Domestic Group

### Environmental Conservation Cost and Economic Effects

(million yen)

Cost Classification at Guideline	FY2010			FY2011			FY2012		
	Investment	Expense	Economic Effects	Investment	Expense	Economic Effects	Investment	Expense	Economic Effects
Antipollution	118	1,242	-	50	920	-	290	883	-
Global Environmental Conservation	434	196	836	250	132	559	253	141	764
Recycling Resources Management Activities	2	431	2,662	1	367	2,073	1	382	1,490
Social Activities	0	275	-	0	495	-	44	368	-
Environmental Damage	5	46	-	0	4	-	0	3	-
Other	0	0	-	0	0	-	0	0	-
<b>Total</b>	<b>559</b>	<b>2,190</b>	<b>3,498</b>	<b>301</b>	<b>1,917</b>	<b>2,632</b>	<b>588</b>	<b>1,777</b>	<b>2,253</b>

Transition of Investment/Expense/Economic Effects (Domestic Group)



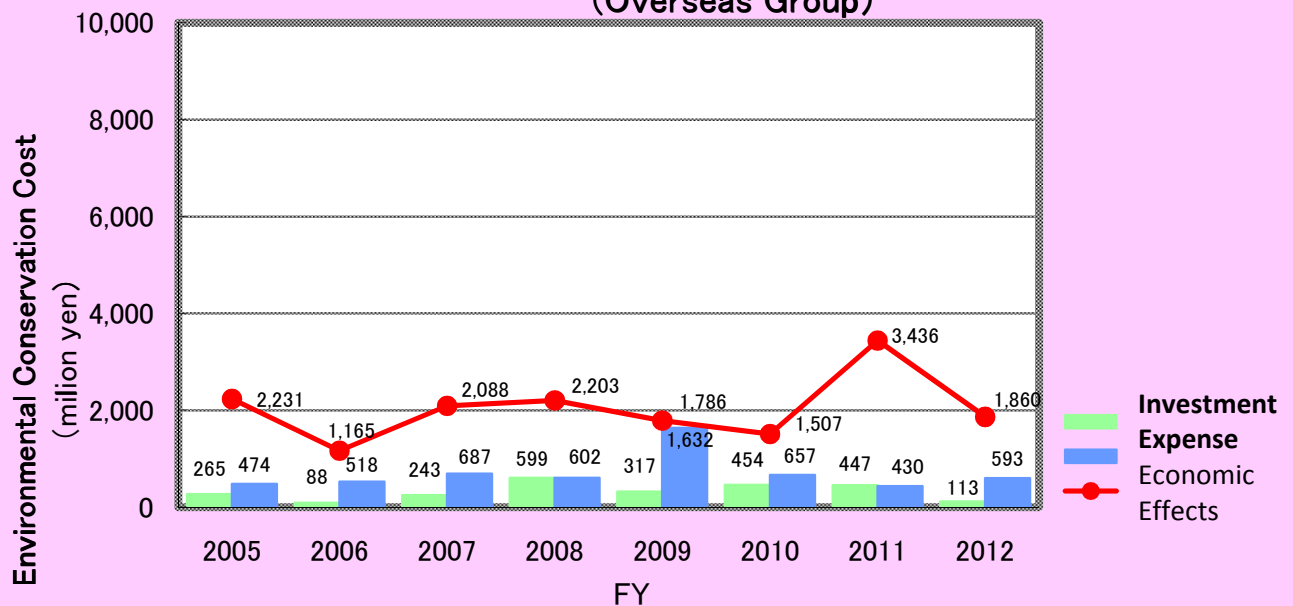
## Environmental Conservation Cost and Economic Effects

(million yen)

Cost Classification at Guideline	FY2010			FY2011			FY2012		
	Investment	Expense	Economic Effects	Investment	Expense	Economic Effects	Investment	Expense	Economic Effects
Antipollution	276	345	-	64	221	-	3	385	-
Global Environmental Conservation	147	74	1,048	378	17	* 2,487	79	43	1,278
Recycling Resources Management Activities	31	194	459	0.1	104	949	30	74	582
Social Activities	0.2	29	-	4	51	-	1.2	55	-
Environmental Damage	0.1	14	-	0.027	15	-	0.2	0.7	-
Other	0	0	-	0	0	-	0	0	-
	0	0.6	-	0	22	0	0.354	35	-
<b>Total</b>	<b>454</b>	<b>657</b>	<b>1,507</b>	<b>447</b>	<b>430</b>	<b>* 3,436</b>	<b>113</b>	<b>593</b>	<b>1,860</b>

\* The reduction effect on cost is achieved by stopping the cogeneration and changing to power purchase at REPI in September, 2011.

Transition of Investment/Expense/Economic Effects  
(Overseas Group)





# All ROHM Site Reports

## ROHM Co.,Ltd. 21 Saiin Mizosaki-cho, Ukyo-ku, Kyoto



Manufacture of Electronic Parts like semiconductor

Item		FY	2010	2011	2012
Power Consumption	kWh		97,413,000	98,556,000	86,937,000
Fuel Consumption	kl		1,658	1,559	1,419
Water Consumption	1,000 m <sup>3</sup>		977	1047	983
Total Amount of Waste Generation	t		858	584	502
Amount of Landfill Waste	t		1.4	0.0	0.04
Recycling Resources Rate	%		99.8	100	99.99
NOx	t		5.1	1.7	1.5
BOD	t		6.1	6.1	6.1

### PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
213	N,N-dimethylacetamide	8.2	1.1	-	-	-	-	-	-
332	Arsenic and its inorganic compounds	1.1	0.8	0.7	-	-	-	-	0.7
374	Hydrogen fluoride and its water-soluble salts	17.9	20.8	7.5	0.2	0.4	-	6.9	-

## ROHM Hamamatsu Co.,Ltd. 10 Sanwa-cho, Minami-ku, Hamamatsu



Manufacture of ICs and LEDs

Item		FY	2010	2011	2012
Power Consumption	kWh		130,231,000	141,461,000	147,649,000
Fuel Consumption	kl		3,647	3,411	3,493
Water Consumption	1,000 m <sup>3</sup>		1,067	1,160	1,096
Total Amount of Waste Generation	t		862	943	984
Amount of Landfill Waste	t		0.1	0.2	0.2
Recycling Resources Rate	%		99.90	99.98	99.98
NOx	t		6.0	5.2	5.2
BOD	t		55	60	60

### PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
213	N,N-dimethylacetamide	31.7	23.7	-	-	-	-	-	-
374	Hydrogen fluoride and its water-soluble salts	46.8	51.1	45.6	-	4.0	-	41.6	-

## ROHM Tsukuba Co.,Ltd. 10 Kitahara, Tsukuba, Ibaraki



Manufacture of Transistors, Diodes and SiC

Item		FY	2010	2011	2012
Power Consumption	kWh		51,890,592	48,028,651	52,124,616
Fuel Consumption	kl		1,040	898	789
Water Consumption	1,000 m <sup>3</sup>		428	451	423
Total Amount of Waste Generation	t		1,227	1,127	1,252
Amount of Landfill Waste	t		89.9	0.0	0.0
Recycling Resources Rate	%		92.7	100.0	100.0
NOx	t		0.9	2.0	0.5
BOD	t		2.7	2.0	1.8

### PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
374	Hydrogen fluoride and its water-soluble salts	13.9	17.4	18.2	-	0.3	-	-	17.9



Manufacture of ICs, Diodes and LEDs

Item		FY	2010	2011	2012
Power Consumption	kWh		94,903,660	95,047,700	91,022,400
Fuel Consumption	kl		656	609	640
Water Consumption	1,000 m <sup>3</sup>		631	631	583
Total Amount of Waste Generation	t		1,672	1,403	1,247
Amount of Landfill Waste	t		0.5	0.3	0.3
Recycling Resources Rate	%		99.9	99.98	99.98
NOx	t		2.0	1.2	2.0
SOx	t		0.9	0.7	0.5
BOD	t		4.3	3.5	4.3

PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
53	Ethylbenzene	4.0	6.8	6.0	4.1	-	-	-	1.9
58	Ethylene glycol monomethyl ether	3.8	3.5	3.3	-	-	-	-	3.3
80	Xylene	32.8	24.3	18.7	1.8	-	-	-	16.9
82	Silver and its water-soluble compounds	2.2	1.5	1.8	-	-	0.5	-	1.3
213	N,N-dimethylacetamide	2.7	1.9	-	-	-	-	-	-
302	Naphthalene	15.9	12.3	10.3	0.1	-	-	-	10.2
343	Pyrocatechol	1.8	1.5	1.2	-	-	-	-	1.2
374	Hydrogen fluoride and its water-soluble salts	37.2	37.1	32.7	0.1	1.8	-	30.8	-
438	Methyl naphthalene	27.3	22.5	20.3	0.1	-	5.7	-	14.5



Manufacture of ICs, Transistors, Diodes, SiC and Tantalum Capacitors

Item		FY	2010	2011	2012
Power Consumption	kWh		156,667,954	147,396,605	148,042,331
Fuel Consumption	kl		2,460	2,222	2,457
Water Consumption	1,000 m <sup>3</sup>		1,324	1,313	1,217
Total Amount of Waste Generation	t		1,990	1,857	1,622
Amount of Landfill Waste	t		0.3	0.2	0.3
Recycling Resources Rate	%		99.9	99.99	99.98
NOx	t		7.0	5.5	4.0
SOx	t		4.0	2.9	3.8
BOD	t		12	12	10
COD	t		1.9	1.6	1.6

PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
20	2-aminoethanol	-	-	-	-	-	-	-	-
53	Ethylbenzene	3.1	3.0	2.1	-	-	-	-	2.1
80	Xylene	3.0	2.7	1.7	0.5	-	-	-	1.2
82	Silver and its water-soluble compounds	0.4	0.3	1.2	-	-	1.1	-	0.1
213	N,N-dimethylacetamide	4.6	-	-	-	-	-	-	-
341	piperazine	1.1	-	-	-	-	-	-	-
374	Hydrogen fluoride and its water-soluble salts	34.9	29.9	25.9	0.4	2.2	-	23.3	-
412	Manganese and its compounds	1.1	0.9	1.2	-	-	0.9	-	0.4
438	Methyl naphthalene	24.3	22.3	21.0	0.1	-	21.0	-	-

# ROHM Mechatech Co.,Ltd.

3-6-1 Tsuchida, Doi-cho, Kameoka, Kyoto



Manufacture of Molding Dies and Lead Frames

Item		FY	2010	2011	2012
Power Consumption	kWh		2,665,368	2,874,222	3,482,000
Water Consumption	1,000 m <sup>3</sup>		1.8	2.0	2
Total Amount of Waste Generation	t		19.9	22	31.9
Amount of Landfill Waste	t		0.9	0.0	0.0
Recycling Resources Rate	%		95.5	100.0	100.0
BOD	t		0.01	0.00	0.00
COD	t		0.01	0.00	0.00

\* At LAPIS Semiconductor, the production stopped in March 29, 2013. The head office moved to Shin-Yokohama in March, 2013.

# LAPIS Semiconductor Co.,Ltd.

550-1 Higashiasakawa-cho, Hachioji-shi, Tokyo



Manufacture of ICs

Item		FY	2010	2011	2012
Power Consumption	kWh		35,573,980	30,471,420	21,507,706
Fuel Consumption	kl		990	739	554
Water Consumption	1,000 m <sup>3</sup>		287	230	132
Total Amount of Waste Generation	t		390	198	132
Amount of Landfill Waste	t		0.5	0.0	0.0
Recycling Resources Rate	%		99.9	100.0	100.0
NOx	t		1.0	0.5	0.3
BOD	t		2.0	1.2	0.8

### PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
20	2-aminoethanol	3.1	2.3	-	-	-	-	-	-
71	Ferric chloride	13.3	10.0	8.9	-	-	-	8.9	-
91	chlorobenzene	-	-	1.1	0.2	-	-	-	0.9
232	N,N-dimethylacetamide	2.4	2.4	2.7	0.5	-	-	-	2.2

# LAPIS Semiconductor Miyagi Co.,Ltd.

1 Okinodaira, Ohira-mura, Kurokawa-gun, Miyagi



Manufacture of ICs

Item		FY	2010	2011	2012
Power Consumption	kWh		135,732,980	133,396,200	120,586,390
Fuel Consumption	kl		4,411	3,701	3,534
Water Consumption	1,000 m <sup>3</sup>		1,544	1,592	1,421
Total Amount of Waste Generation	t		1,427	1,509	1,144
Amount of Landfill Waste	t		2.6	1.1	0.5
Recycling Resources Rate	%		99.78	99.93	99.96
NOx	t		16	12	12
SOx	t		10	8	5
BOD	t		3.0	2.3	1.8
COD	t		22	22	19

### PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
232	N,N-dimethylacetamide	1.8	-	-	-	-	-	-	-
278	Triethylenetetramine	1.9	2.3	1.5	0.3	1.2	-	-	-
343	Pyrocatechol	-	1.1	-	-	-	-	-	-
374	Hydrogen fluoride and its water-soluble salts	53.3	53.8	46.5	0.3	-	-	46.2	-
438	Methyl naphthalene	50.1	42.0	39.9	0.2	-	-	39.7	-



Manufacture of ICs

Item		FY	2010	2011	2012
Power Consumption	kWh		184,358,530	164,717,837	168,147,914
Fuel Consumption	kl		3,389	6,400	6,298
Water Consumption	1,000 m <sup>3</sup>		891	880	835
Total Amount of Waste Generated	t		1,909	1,592	1,527
Amount of Landfill Waste	t		10.6	2.6	0.0
Recycling Resources Rate	%		99.4	99.8	100.0
NOx	t		17	69	63
SOx	t		27	21	42
BOD	t		1.5	1.4	1.3
COD	t		1.2	1.5	1.4

■ PRTR

(t)

PRTR Ordinance No	Substance	2010		2011		2012			
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
20	2-aminoethanol	18.3	11.0	5.6	1	4.6	-	-	-
80	Xylene	4.5	3.2	1.8	0.3	1.5	-	-	-
343	Pyrocatechol	0.9	-	-	-	-	-	-	-
374	Hydrogen fluoride and its water-soluble salts	32.9	27.3	21.2	0.1	2.3	-	18.7	-
438	Methyl naphthalene	39.9	75.7	74.8	0.4	-	-	74.4	-



Distribution of ROHM Products

Item		FY	2010	2011	2012
Power Consumption	kWh		1,132,752	1,072,722	1,040,688
Fuel Consumption	kl		93	84	92
Water Consumption	1,000 m <sup>3</sup>		4	4	4
Total Amount of Waste Generated	t		18	20	16
Amount of Landfill Waste	t		0.04	0.04	0.01
Recycling Resources Rate	%		99.8	99.8	99.9
NOx	t		0.1	0.1	0.1
SOx	t		0.1	0.1	0.1
BOD	t		0.02	0.01	0.01

# ROHM Korea Corporation

371-11 Gasan-Dong, Gumcheon-gu, Seoul 153-803 Korea



Manufacture of ICs, Transistors, Diodes, LED Displays

Item		FY	2010	2011	2012
Power Consumption	kWh		34,170,043	36,041,344	35,907,830
Fuel Consumption	kl		0	68	59
Water Consumption	1,000 m <sup>3</sup>		77	98	103
Total Amount of Waste Generated	t		424	464.4	463
Amount of Landfill Waste	t		0.7	0.8	0.4
Recycling Resources Rate	%		99.8	99.82	99.9
BOD	t		0.2	0.35	0.2
COD	t		0.5	0.7	0.4

## PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	7.8	6.4	6.5	-	-	2.7	-	3.8

# ROHM Electronics Philippines, Inc.

People's Technology Complex Special Economic Zone, Carmona, Cavite 4116 Philippines



Manufacture of ICs, Transistors, Diodes and Resistors

Item		FY	2010	2011	2012
Power Consumption	kWh		69,708,666	152,582,910	188,036,311
Fuel Consumption	kl		28,882	9,527	419
Water Consumption	1,000 m <sup>3</sup>		1,497	1,374	1,122
Total Amount of Waste Generated	t		1,232	1,253	1,152
Amount of Landfill Waste	t		0	0	0
Recycling Resources Rate	%		100	100	100
NOx	t		870	247	0.1
SOx	t		597	182	0.2
BOD	t		1.0	0.5	0.3
COD	t		3.0	2.5	1.3

## PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	7.5	7.2	6.4	-	-	1.8	-	4.6
57	ethylene glycol monoethyl ether	0.9	0.9	1.0	-	-	-	-	1.0
82	Silver and its water-soluble compounds	9.2	8.3	7.6	-	-	6.8	-	0.8
308	Nickel	6.1	17.1	11.4	-	-	11.2	-	0.1
309	Nickel compounds	4.8	5.1	3.5	-	-	2.8	-	0.7

# ROHM Integrated Systems (Thailand) Co., Ltd.

101/94, 102 Navanakorn Industrial Zone, Moo 20, Phaholyothin Road, Tambol Khlong-Nueng, Amphur Khlong-Lueng, Pathumthani 12120 Thailand



Manufacture of ICs, Transistors, Diodes, Resistors and Tantalum Capacitors

Item		FY	2010	2011	2012
Power Consumption	kWh		202,322,701	151,684,550	133,226,825
Fuel Consumption	kl		211	0	0
Water Consumption	1,000 m <sup>3</sup>		1,355	902	942
Total Amount of Waste Generated	t		2,300	1,976	987
Amount of Landfill Waste	t		0	0	0
Recycling Resources Rate	%		100	100	100
BOD	t		4.0	3.7	3.9
COD	t		19	16	16

## PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	10.1	7.0	4.2	-	-	0.4	-	3.8
82	Silver and its water-soluble compounds	8.0	5.2	2.9	-	-	2.4	-	0.5
308	Nickel	24.5	13.6	8.9	-	-	8.5	-	0.4
309	Nickel compounds	11.2	6.2	3.5	-	-	2.8	-	0.7



# ROHM Semiconductor (China) Co.,Ltd.

No.7 Weisan Road, Micro-electronics Industrial Park, Jingang Highway, Xiqing District, Tianjin 300385 China



Manufacture of Transistors, Diodes, LED, Laser Diodes, LED Displays and Optical Sensors

Item		FY	2010	2011	2012
Power Consumption	kWh		87,646,000	87,932,000	74,232,000
Water Consumption	1,000 m <sup>3</sup>		459	528	408
Total Amount of Waste Generated	t		862	904	689
Amount of Landfill Waste	t		656	682	515
Recycling Resources Rate	%		24	25	25
BOD	t		4.0	4.8	4.3
COD	t		19	21	14

PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
20	2-aminoethanol	1	-	-	-	-	-	-	-
31	Antimony and its compounds	2	3	1.5	-	1.2	0.2	-	-
37	Bisphenol A	43	38	33.5	-	28.5	5.0	-	-
71	Ferric chloride	48	42	43.3	-	-	43.3	-	-
82	Silver and its water-soluble compounds	2	2	1.8	-	-	0.2	-	1.6
265	Methyltetrahydrophthalic anhydride	3	1	1.2	-	-	0.1	-	1.1
291	Tris (2,3-epoxypropyl)	12	13	12.1	-	-	12.1	-	-
305	Lead and its compounds	5	5	3.8	-	2.3	1.5	-	-

# ROHM Electronics Dalian Co.,Ltd.

No.20 Four Street East & North, Dalian Economic & Technical Development Zone, Dalian 116600 China



Manufacture of Power Modules, Thermal Print Heads, Contact Image Sensor Heads, Photo Link Modules, LED Lighting, Optical Sensors and LED Displays

Item		FY	2010	2011	2012
Power Consumption	kWh		62,857,810	62,064,319	59,974,718
Fuel Consumption	kl		5,183	4,516	4,014
Water Consumption	1,000 m <sup>3</sup>		317	588	554
Total Amount of Waste Generated	t		178	183	222
Amount of Landfill Waste	t		35	28	32
Recycling Resources Rate	%		80.6	84.5	85.7
BOD	t		1.6	1.5	1.4
COD	t		20	18	10

PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	1.4	0.7	0.6	0.1	-	0.5	-	-
71	Ferric chloride	9.9	9.5	3.4	0.3	0.2	2.9	-	-
82	Silver and its water-soluble compounds	1.8	1.9	1.7	0.2	0.1	1.4	-	-

# ROHM-Wako Electronics (Malaysia) Sdn. Bhd.

Lot 1320 Kawasan Perindustrian, Pengkalan Chepa II, Padang Tembak, 16100 Kota Bharu, Kelantan, Malaysia



Manufacture of Diodes and LEDs

Item		FY	2010	2011	2012
Power Consumption	kWh		69,230,879	69,220,448	65,766,640
Fuel Consumption	kl		16	31	31
Water Consumption	1,000 m <sup>3</sup>		358	375	355
Total Amount of Waste Generated	t		1,062	1,141	1,068
Amount of Landfill Waste	t		75	85	76
Recycling Resources Rate	%		93.0	92.5	92.9
BOD	t		1.0	1.1	1.4
COD	t		1.6	3.4	3.5

PRTR

(t)

PRTR Ordinance No.	Substance	2010	2011	2012					
		Amount used	Amount used	Amount used	Amount released	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
20	2-aminoethanol	1.9	1.7	1.6	0.5	-	-	-	1.1
31	Antimony and its compounds	0.5	0.6	0.6	0.1	-	-	-	0.5
71	Ferric chloride	8.1	19.5	19.7	6.9	-	-	-	12.8
82	Silver and its water-soluble compounds	0.8	2.2	0.6	0.1	-	-	-	0.5
291	Tris (2,3-epoxypropyl)	1.1	1.0	0.7	0.3	-	-	-	0.4
297	1,3,5-trimethylbenzene	1.2	0.9	0.9	0.2	-	-	-	0.7
305	Lead and its compounds	12.3	6.2	6.0	2.1	-	-	-	3.9



Manufacture of Molding Dies and Lead Frames

Item		FY	2010	2011	2012
Power Consumption	kWh		10,036,005	10,336,343	11,320,390
Fuel Consumption	kl		420	328	466
Water Consumption	1,000 m <sup>3</sup>		29	43	50
Total Amount of Waste Generated	t		346	347	768
Amount of Landfill Waste	t		0.4	0.1	0.00
Recycling Resources Rate	%		99.9	99.98	100.00
NOx	t		0.1	0.8	1.8
SOx	t		0.6	0.5	0.04
BOD	t		0	-	-
COD	t		0	-	-



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