

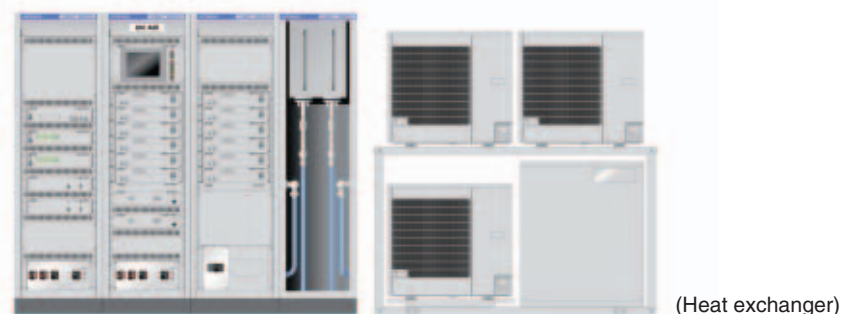
4 Ecological Products

Examples of Environment-Friendly Products

1 Ground-based digital broadcasting equipment (water-cooled)

This equipment is designed for the digital terrestrial broadcasting that will be initiated in fiscal 2003. With the aim of "being kind to the Earth," a low-power water-cooling system has been developed to achieve a compact, space saving, and energy saving design.

Item No.	Environment item	Conventional equipment (analog)	Newly developed equipment (digital)	Effect	
1	Functional improvement	SDTV (1 channel)	HDTV (1 channel) or SDTV (3 channels)		
2	Low power consumption	30 kW	8 kW	75% reduction	
3	Environmental improvement (noise)	65 dB	45 dB	20 dB reduction	
4	Resource saving	Weight	4,000 kg	1,500 kg	62.5% reduction
		Floor area	7.5 m ²	4.3 m ²	42.5% reduction



2 Electric-powered pan head network camera (HC-30)

With its built-in LAN interface and Web server functions, this electric-powered pan head network camera can be operated remotely using an external personal computer to control the camera's pan, tilt, zoom, and other functions. The camera, camera case, lens, encoder, and pan-head unit that have conventionally been provided as separate units are integrated to produce a product that is small and lightweight and has a low power consumption.

Item No.	Environment item	Conventional equipment	Newly developed equipment	Effect	
1	Low power consumption	80 W	17 W	79% reduction	
2	Small and lightweight	Volume	18.3 liters	4.4 liters	76% reduction
		Weight	18 kg	8 kg	56% reduction



3 BS110°CS receiver antenna (analog aperture:75 cm)

To meet the start of BS110°CS digital broadcasting, this receiver antenna for community housing has an increased bandwidth. Taking the environment into consideration, we have managed to reduce the weight and cost of this antenna by reviewing the quality of its materials.

Item No.	Environment item	Conventional equipment	Newly developed equipment	Effect	
1	Performance improvement (wide band)	Receiving frequency 11.7 to 12.0 GHz	Wide band 11.7 to 12.75 GHz	350%	
2	Low power consumption	4 W	1.5 W	62.5% reduction	
3	Environment improvement (change of component materials)	GFRP with aluminum mesh	Aluminum materials	40% improvement of recyclable efficiency	
4	Resource saving	Weight	12 kg	7.1 kg	40.8% reduction
		Volume	757 cm ³	639 cm ³	15.6% reduction



4 Cable TV booster

This high-performance cable TV booster compensates for reductions in household signal levels that occur due to multiple signal distributions and long cable routes. Our patented "Hizuma-naizer" (Distortion Eliminator) circuit created as original technology enables high output, low power consumption, and low-distortion characteristics.

Item No.	Environment item	Conventional equipment	Newly developed equipment	Effect	
1	Performance improvement	Upward output level 100 dB μ	Upward output level 114 dB μ	-	
2	Low power consumption	23 W	20 W	13% reduction	
3	Resource saving	Weight	2.2 kg	1.8 kg	18% reduction
		Volume	2.5 liters	2.1 liters	16% reduction



5 Simple commercial cellular telephone

This simple commercial cellular telephone offers a thin, compact, and lightweight design achieved through the use of magnesium die casts and energy conservation achieved by using a low-voltage power supply and low power consumption circuits.

Item No.	Environment item	Conventional equipment	Newly developed equipment	Effect	
1	Compact	Volume	196 ml	135 ml	31% reduction
		Weight (including antenna)	368 g	192 g	48% reduction
2	Energy conservation	Transmitting	14 W	13.3 W	5% reduction
		Receiving	1.7 W	1.4 W	18% reduction
		Standby	0.4 W	0.3 W	25% reduction



6 Ultra-small module for packet communication (PM1-S)

This product integrates packet communication and data communication adapter functions of cellular telephones to provide mobile solutions. Although it is small, lightweight, and has a low current consumption, this product incorporates a full range of packet communication functions.

Item No.	Environment item	Conventional equipment	Newly developed equipment	Effect	
1	Function improvement	PDC-P support	PDC-PDoPa		
2	Low power consumption	3 W (during communication)	2 W (during communication)	62.5% reduction	
3	Resource saving	Weight	110 g approximately	30 g approximately	40.8% reduction
		Volume	85 cm ³ approximately	6 cm ³ approximately	15.6% reduction



7 300 mm vertical oxidation diffusion/CVD system ZESTONE-III (C)

Expanding on its technology of vertical diffusion systems capable of handling wafers less than 200 mm (8 inch), which already boasts a significant delivery record, Hitachi Kokusai Electric has developed the 300 mm (12 inch) vertical oxidation diffusion/CVD system. Compared with conventional products, the compact and lightweight design of the ZESTONE-III has enabled the product volume and occupied floor space to be reduced by up to 80%. Moreover, because the design has been standardized to facilitate upgrading, the customer will be able to use this product for a very long time.

Item No.	Environment item	Conventional equipment (DD/DJ-1203V)	Newly developed equipment (DD/DJ-1223V)	Effect	
1	Resource saving	Weight	5190 kg	4982 kg	4% reduction
		Volume	1250(W)×3060(D)×3410(H)	1100(W)×2790(D)×3410(H)	20% reduction
2	Low power consumption	Operating	9.659 kW	9.450 kW	2% reduction
		Standby	6.960 kW	5.100 kW	27% reduction



CVD : Chemical Vapor Deposition