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Consumer Products

7000 Series of Hi-definition Plasma TVs

With the nationwide spread of digital terrestrial broadcasting in 2006, expectations run high for Hi-definition broadcasting. Hitachi, Ltd. is now promoting its "Plasma World," centering on the 7000 series of high-image-quality Hi-definition flat panel TVs, Hi-definition-compatible liquid crystal projectors, digital terrestrial Hi-definition-compatible HDD and DVD recorders, and other Hi-definition equipment. The company thus leads the field of digital home appliances.

The 7000 series of Hi-definition plasma TVs are equipped with "Picture Master"—new digital high-image-quality technology.

The Japanese market for large flat panels has grown quickly since fiscal 2001, and demand for consumer plasma TVs reached 250,000 units. Demand is expected to total about 350,000 units in fiscal 2004 (source: Hitachi, Ltd.).

Hitachi entered the flat panel TV business ahead of other competitors and has long been proposing a flat panel strategy compatible with Hi-definition. As a result, the company has been the leader in sales for the three consecutive years from 2001 to 2003 (according to GfK Marketing Services Japan Ltd., in terms of sales of mass merchandisers). Hitachi has now commercialized its 7000 series of Hi-definition plasma TVs (five models with four monitor sizes). For current lines of commercially available products, the company focuses on three elements: high image quality, high-quality design, and high-capacity hard disc drives.

(1) To achieve high image quality and realism (such as in Hi-definition), Hitachi has developed Picture Master, a processing technology for high-image-quality digital images. This technology reproduces clear-cut images with high contrast and minimal noise in each scene. It produces three-dimensional imagery as opposed to conventional flat imagery.

(2) Hitachi monitors various design trends including those in areas other than televisions, and emphasizes three-dimensional ambience, design expressions based on real materials, and very flat forms.

(3) Flat panel TV models equipped with HDD recorders have added value because of the ease of recording, which is made possible by Hi-definition technology and ready access to high-quality Hi-definition imagery. Models equipped with both an HDD and DVD recorder can store the user's favorite programs to DVDs.

Aiming to replace all living room TVs with flat panel TVs, Hitachi will promote a wide lineup of products meticulously designed to meet the size and functional needs of users.



7000 series of Hi-definition plasma TVs



7000 Series of Hi-definition Liquid Crystal TVs with Wide Viewing Angles

The market for large flat panel TVs has grown quickly since fiscal 2001. The demand for 26-in or larger liquid crystal TVs for use in households in Japan is expected to reach about 780,000 units in fiscal 2004, up from 520,000 units in fiscal 2003 (source: Hitachi, Ltd.). In response to these trends, Hitachi is marketing its 7000 series of high-definition television liquid crystal TVs (32- and 27-in) with wide viewing angles.

with wide viewing angles. The 32-in liquid crystal TV monitor combines Hitachi's new advanced super in-plane switching Hi-definition liquid crystal panel with real Hi-definition (aspect ratio of 16 to 9) and a unique wideview filter. Thus, this product has a viewing angle equivalent to that of a CRT [i.e. 176° vertically and horizontally, conforming to JEITA (Japan Electronics and Information Technology Industries Association) standards]. Every TV in the series uses fast liquid crystal and overdrive circuits to achieve after-image-free imagery.



32-in Hi-definition liquid crystal TV monitor of 7000 series of Hi-definition flat panel TVs (left) and model equipped with audio-visual control station with hard disc drive (right)

Projector for Showing Movies and Hi-definition Programs on a Large High-quality Screen



Hitachi has released a liquid crystal projector that allows consumers to easily enjoy movies and Hi-definition programs at home. [Main characteristics]

(1) A 720-P-wide liquid crystal panel compatible with digital Hidefinition broadcast signals, which allows it to reproduce fine imagery.

(2) A "super focus lens" that reproduces high quality, realistic images with three-dimensional ambience, depth, and high fidelity.
(3) A large-diameter lens with a luminance as high as 1,200 lm, which allows consumers to enjoy imagery even in a well-lit room.

(4) A motor-driven iris mechanism that allows consumers to easily select the gradation of shade of the projected image, which is important when viewing movies.

(5) An optical $1.6 \times \text{zoom}$ and a vertical/horizontal lens shift mechanism that widens the range of settings.

User-friendly DVD Recorders with Multi-drives

Hitachi has released three models of DVD (digital versatile disc) recorders: the DV-DS160 DVD recorder (with a 160-Gbyte hard disc drive), DV-RV7000 (with an integrated VHS video unit), and DV-RX7000 (a standalone DVD recorder). All three models combine high image quality with high searchability and user-friendliness.

[Main features]

(1) DVD multi-drive

Record and play DVD-RAM, -RW, and -R. They also play unfinalized DVD-R discs containing pictures taken with a DVD camcorder.

(2) Hitachi's unique "*Mirukamo* (may view)" program (DV-DS160) To use this program, simply place the cursor on a day of the week and a time period, and then choose a channel. In this way, a TV drama series or other program repeated at the same time every week can be recorded easily.

(3) Disc navigation

The DVD recorders list recorded programs on the TV monitor and let a user play the programs he/she wants to watch.



Lineup of DVD recorders

Compact DVD Camcorders with High Image Quality and Familiar Design



DZ-GX20 series (above left) and DZ-MV780 series compact DVD camcorders

Hitachi has released two models of DVD camcorders: the DZ-GX20 (with a CCD of 2.12 million pixels) and DZ-MV780, which is the world's smallest DVD camcorder (with a CCD of 1.33 million pixels) with three color variations. These models are designed for both high-quality motion and still pictures.

[Main features] (1) Greatly reduced size

(1) Greatly reduced size

Both models use Hitachi's new, small 8-cm DVD drive, so they are compact. The DZ-MV780 is 85% of the size of conventional DVD camcorder.

(2) High-image-quality design

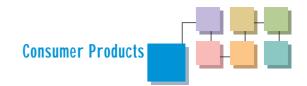
Both models use Hitachi's new, high-image-quality processing circuit, which increases the number of image processing bits from 10 to 12 and achieves a four-fold gradation.

(3) Quicker startup

Both models recognize the presence of a disc even when turned off. The startup time after turning on the camcorder has been shortened to about 6.5 seconds for higher operability.

(4) Use of cartridge-less discs

These models use a cartridge-less 8-cm DVD, thus reducing the size of the camcorder and increasing the ease of playing and editing recordings using a DVD recorder, PC, or other equipment.



Personal Computer L Series



Keep up with the rapid growth of the broadband, Hitachi has released the new consumer personal computer, L Series. [Main features]

(1) Deck series has substantial AV function. Deck series has 23" inch or 17" wide beautiful LCD display, and new hard-ware MPEG2 high quality double tuner.

(2) Air series is compact standard model. The design matches with the interior.

(3) Air One series is stylish LCD desktop (all-in-one) PC.

(4) Note series is pleasant and comfortable notebook types. Consumers can watch TV, DVDs, pictures and can listen to music easily by using Hitachi original multi content viewer software. TV function model has auto digesting function. This technology provides auto digesting for TV recording content. Consumers can watch varieties of content easily by using this function.

L series personal computers

Digital Hi-Vision-HDD DVD Recorders with Terrestrial Digital Tuner



Hitachi has released three models of digital Hi-Vision recorders, all of which have a terrestrial digital tuner and can easily record and playback Hi-Vision programs.

[Main features]

(1) High-capacity HDD

The DV-DH400T has a 400-Gbyte HDD (hard disc drive) and can record about 40 hours of Hi-Vision programs at the original image quality.

(2) DVD (digital versatile disc) multi-drive

The three models record and playback DVD-RAM, -RW, -R, playback +RW and +R, and are capable of high-speed dubbing.

(3) Electronic program guide

This feature allows users to easily find and reserve/recording of programs on a TV monitor and search by category or by entering text.

(4) Hitachi's unique "*Mirukamo* (may view)" program A user can easily program the recorders to record drama series and other programs broadcast at the same time each week.

Lineup of digital Hi-Vision recorders

Progressive Playback DVD Players



DV-P700 DVD player (top) and DV-PF7 VHS video-integrated DVD player (bottom)

Beginning in August 2004, Hitachi began releasing its DV-P7000 DVD player and DV-PF7 VHS video-integrated DVD player at the same time as Hi-Vision plasma TVs and other progressive TVs. [Main features]

(1) Both models of DVD players have high-image-quality progressive playback capabilities.

(2) The models can play not only commercially available DVDs, but also MP3 and JPEG files recorded on DVD-Rs, music CDs, CD-R/RWs, and Windows Media* Audio (WMA) files on CDs or DVDs

(3) The models allow a user to navigate discs to find scenes the user wants to view.

(4) The DV-P700 has a slim design (only 51-mm thick or about 92% of the thickness of Hitachi's conventional models).

(5) The DV-PF7 uses half-mirror processing that gives upmarketed presence.

* See "Trademarks" on page 86.

DVD Super Multi Drive (GSA-4163B)

The market for DVD (digital versatile disc) writable drives is growing quickly. In 2004, the number of units sold was double that of the previous year, and number sold in 2005 is expected to be over 150% of the 2004 figure. Hitachi has launched the fourth-generation DVD Super Multi Drive GSA-4163B, which supports all writable DVD formats. This drive can write DVD-R and +R at 16x, which is thought to be the fastest write speed possible for DVDs.



DVD Super Multi Drive GSA-4163B

[Main features]

(1) Hitachi's new components allow high quality recording at the industry's top write speeds:
DVD-RAM: 5x
DVD-R/+R: 16x

(2) Data capacity is drastically increased (for a total of 8.5 Gbyte): Supports double layer discs (+R) (Hitachi-LG Data Storage, Inc.)

	Write	Read
DVD-ROM (SL)	_	16 x
DVD-ROM (DL*1)	—	8 x
DVD-R	16 x	10 x
DVD-RW	6 x	8 x
DVD-RAM	5 x	5 x
+R (SL)	16 x	10 x
+R (DL*2)	4 x	8 x
+RW	8 x	8 x
CD-ROM	_	40 x
CD-R	40 x	40 x
CD-RW	24 x	40 x
L: single laver	*1DL: dual laver	*2DL: double laver

Maximum write/read speed



Compact, Large-volume Refrigerator Offers a New Kitchen Solution

Hitachi has released a space-saving, large-volume refrigerator for small households.

[Main features]

(1) The number of doors has been increased to five or six, improving the ease of use and achieving a capacity of 395 L in an approximately 60 cm \times 60 cm cabinet. This refrigerator has a storage efficiency of 59.5% (the highest in the industry across Japan).

(2) The exterior design features flat surfaces to match system kitchens as well as a straight door handle.

(3) It features an "automatic ice-maker that allows a choice of two sizes of ice-cubes," a "nano-titanium antibacterial deodorizing filter for all compartments," and a "quick-freezing function with -35° C cold air."

(Hitachi Home & Life Solutions, Inc.)



External view of compact, large-volume refrigerator

Room Air Conditioner Features Intake/Exhaust as well as Strengthened Disinfectant and Deodorant Functions



External view of room air conditioner that features a ventilation function as well as strengthened disinfectant and deodorant functions

Hitachi has released a room air conditioner that features an evolved intake/exhaust and nano-titanium disinfectant and deodorant functions.

[Main features]

(1) Using a turbo fan, intake/exhaust functions enable the capacity to be adjusted on three levels and to maintain clean, fresh air in the room.

(2) The air supply filter in the air duct features a "nano-titanium disinfectant and deodorant filter" so that outside air is cleaned before being brought in the room.

(3) An automatic intake/exhaust function expels pollutants detected in the air, and it then brings in fresh air from outside.

(4) It features a "nano-titanium ion air cleaning" function, in which impurities are collected by negative ions, and air in the room is disinfected and deodorized by a nano-titanium filter.

(5) The compressor, which is the heart of the air conditioner, features a newly developed double-accelerator system that dramatically increases heating power and reduces energy consumption.

This product (RAS-S28T) won the Energy Conservation Award given by the Energy Conservation Center, Japan.

(Hitachi Home & Life Solutions, Inc.)

3rd-generation Washer/Dryer Offers High Washing Capabilities and Significant Water Savings

Hitachi has released a 3rd-generation washer/dryer that offers high washing capabilities and better water-saving performance than drum-type washers, using the world's first "Water Saving Beat Washing" method.

[Main features]

(1) Clothes are vibrated vertically using "washing wings" developed based on a new concept, and high-concentration detergent is poured over the clothes repeatedly by a circulation pump, achieving outstanding washing power with minimal damage to fabrics, and using only about half the water volume of conventional washing machines.

(2) The speed-drying technologies that combine a high-speed spindry cycle that reaches 1,000 rpm and a highly efficient drying unit enables 4 kg of laundry to be washed and dried in about 120 minutes.

(3) The wide drum enables drying of 7 kg of laundry in a single load.

(4) Because the operation panel is integrated into the lid, the opening is very wide; combined with the shallow washing drum, this makes it very easy to insert and remove the laundry. (Hitachi Home & Life Solutions, Inc.)



Newly developed 3rd-generation washer/dryer

Easy-to-clean Bagless Vacuum Cleaner with Durable High Power



Hitachi has released a bagless vacuum that offers high suction and durability, as well as improved ease of use and sanitary functions. [Main features]

(1) High-performance, high-power motor and low loss technologies achieve the highest suction in a cyclone-type vacuum, and 590 W of power.

(2) "Auto-cleaning mechanism" maintains high suction power, automatically removing dust and refreshing the filter simply by pulling out the power cord.

(3) "Powerful super-automatic head" reduces the work of head operation by more than 80%*.

(4) Remove the head to reveal the "Rotating Brush," which can be adjusted to any angle for easy cleaning in narrow or high places.

(5) "Allergy-off / Multi disinfectant-deodorant system" catches bacteria, allergens (ticks, cedar pollen), and even smells. (Hitachi Home & Life Solutions, Inc.)

 $^{*}Comparison of Hitachi's "CV-W82" (released 8 years ago) and "CV-SH10" (when head is moving forward)$

Powerful vacuum cleaner "CV-SH10"