

Hitachi to Release "FLORA 270W Silent Models,"  
the World's First Products of notebook PC with a Silent Water-cooling System

Tokyo July 17, 2002 --- Hitachi, Ltd. (TSE:6501) today announced that it has recently commercialized fanless, silent "FLORA 270W Silent Models," the world's first products of notebook PC with a "Silent Water-cooling System" and a high-performance Mobile Intel® Pentium® 4 Processor-M. It will begin selling them today.

These days, with such technical advances as the improving performance of PC-mounted processors and graphics cards and the rising speed of HDDs, the power consumption (generated heat) of PCs have been increasing is on an upward trend. To meet that trend, such heat-combating measures are taken as using larger heat sinks and fans, increasing fan rotating speed, and incorporating more than one fan. However, these heat-combating measures are becoming a major problem with the comfortable use of PCs for such reasons as the difficulty in making small and thin PCs and increasing noise from fans.

Based on those circumstances, we developed "FLORA 270W Silent Models" with a high-performance processor and a "silent water-cooling system" capable of cooling it without a fan. The models achieve a operating noise level of less than 30dB, which is as silent as a typical library.

The products released today will be sold to Japanese market at such sites as "Hitachi Internet Shop" (our net direct sale site for corporations) and our marketing and sales agencies.

These products will be exhibited at the Hitachi IT Convention 2002 to be held at the Tokyo International Forum of July 18 and 19.

Prices and delivery dates of the new products

(The product is assembled by CTO basis Recommended models are therefore specified here.)

1	Model	PC8NW4-HLF4H1AB0/PC8NW4-PLF4H1AB0
2	Price (yen)	(*1)JPY 341,000
3	Shipment date	September 30, 2002

Recommended configuration

CPU:	Mobile Intel® Pentium®4 Processor 1.8GHz-M
RAM:	128MB
HDD:	20GB
ODD:	CD-ROM (max24X)
LCD:	15" TFT (SXGA+)
Communications:	(*2)LAN
OS:	Windows® XP Professional/Windows® 2000 Professional

\*1: The prices are recommended retail prices (without consumption tax).

\*2: For communications, LAN and modem and wireless LAN can be selected on a CTO basis.

Features of the product

(1) Combining high performance with silence

The product is equipped with the Silent Water-cooling System, which cools CPU by circulating coolant fluid. The silent water-cooling system consists of a water storage tank. Designed without a fan, these products are quite silent with a driving noise of less than 30dB while incorporating a high-performance Mobile Intel® Pentium® 4 Processor-M. (Expected applications include executive rooms, libraries, hospitals, and educational establishments.)

(2) Three-year warranty at free of charge

A three-year free-of-charge warranty with maintenance service<sup>\*1</sup> is applied to the product Users can save their total maintenance costs and cut TCO.

If you prefer an on-site service which serviceperson to visit your workplace for repairs on the same day or on the next weekday, you can select a charged service from a maintenance service menu for a fee. Servicepersons will come to your workplaces speedily from 330 service centers throughout the country and will service your systems.

### (3) Superior maintainability and safe design

The product needs no refills or exchange of coolant. The LCD panel (high-voltage part) is shut off with a plastic partition for safety just in case of a coolant leak or other trouble.

### (4) Comfortable operability

These models incorporate a 15" diagonal SXGA+ (1,400 x 1,050-dot) LCD display, which has a display capable of as about 1.9 times resolution as a XGA (1,024 x 768-dot) LCD display. It reduces the number of scrolls in documentation and improves work efficiency, resulting in comfortable operability.

They are compatible with a built-in wireless LAN conforming to IEEE 802.11b (1ch to 11ch) on a CTO basis. This enables the wireless viewing of websites on the Internet, the communication of e-mail, and other operations without being bothered about cabling, resulting in higher operational efficiency. The WEP (encryption) keys are based on 40/128-bit, thus achieving high security.

### (5) Security

A personal authentication is available by using an optional USB-connected smart card reader/writer<sup>\*2</sup>. It will prevent an authorized use of the product.

The product comes with a power-on password (where the PC can only be booted up when you enter the correct password) and an HDD password<sup>\*3</sup> function (where you can set a password in the internal HDD by means of BIOS). You can thus prevent an authorized use of PCs and the leakage of internal information.

#### Text notes

\*1: A "take-in service" will be conducted free of charge for three years. The service is

conducted such that a transporter specified by Hitachi takes in a device to be repaired, repair it, and gives it back to the customer. You can also select a charged service from a maintenance service menu for a fee, such as "maintenance service" [where a serviceperson visits the site and repairs the device when the trouble occurs (on-site same-day)] and "visiting repairs service" [where a serviceperson visits the site and repairs the device on or after the weekday after the trouble occurs (on-site next-weekday)]. Batteries, HDDs, and other parts with limited service lives may be out of the scope of free-of-charge warranty. For the details of the warranty, see the homepage at:

[http://www.hitachi.co.jp/pc\\_3w](http://www.hitachi.co.jp/pc_3w)

- \*2: The system build consists of smart cards will be performed by Hitachi IC Systems Solutions. For the details, see its homepage at <http://www.hitachi.co.jp/ic-card>.
- \*3: If you forget your HDD password, you cannot use your PC any more. Be careful enough in password control.

#### Note on other companies' trademarks

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.

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