

SONY VAIO™ X505

THERMAL SOLUTIONS FOR LAPTOPS

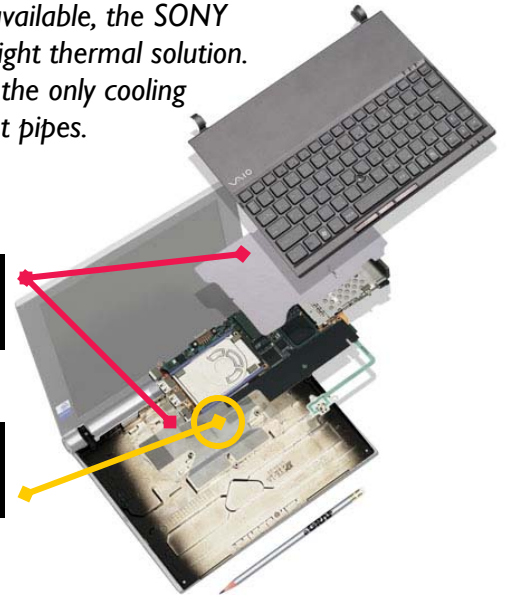


VAIO PCG-X505/SP EXTREME
TOTAL THICKNESS: 9.7-21 mm
TOTAL WEIGHT: 768 g

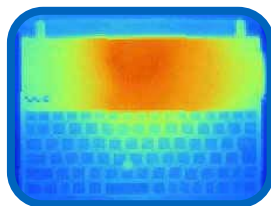
As one of the thinnest and lightest notebook PCs available, the SONY VAIO X505 required a high-performance, light-weight thermal solution. Designed with SPREADERSHIELD components as the only cooling method, the system has no fans, heat sinks or heat pipes.

Two SPREADERSHIELD parts conduct heat from the 1 GHz microprocessor, graphics processor and DRAM into the magnesium case.

Compressible pads are used to increase contact pressure and optimize thermal resistance between the GPU and SPREADERSHIELD components.

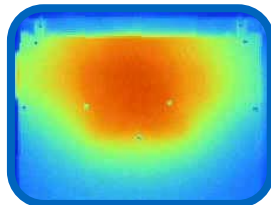


WITHOUT SPREADERSHIELD



TOP OF CASE
OVER CPU: 17.9°C
OVER KEYBOARD: 8.3°C

CPU TEMPERATURE: 77°C



BOTTOM OF CASE
UNDER MEMORY: 18.0°C
OVER KEYBOARD: 10.6°C

WITH SPREADERSHIELD



PIAI Coating

TOP OF CASE
OVER CPU: 17.0°C
OVER KEYBOARD: 7.5°C
▪ **REDUCED HOT SPOT**

CPU TEMPERATURE: 60°C
▪ **REDUCED BY 17°C!**



PIPA Coating

BOTTOM OF CASE
UNDER MEMORY: 17.6°C
OVER KEYBOARD: 10.6°C
▪ **INCREASED AREA FOR HEAT SPREADING**

Ran Prime 95 (exercises CPU and memory), H monitor used to measure CPU temperature. Temperatures measured at steady state (~ 2 hours)

Email us at egraf@graftech.com to request a sample today!