

TOSHIBA, HITACHI LICENSE RAMBUS PATENTS

By Peter N. Glaskowsky {7/17/00-03}

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Toshiba and Hitachi have licensed from Rambus patents said to cover key elements of SDRAM and DDR SDRAM technology. Hitachi's agreement with Rambus also settles the legal case between the two companies (see *MPR* 4/24/00-01, "Ethical Standards"). Both

Toshiba and Hitachi agreed to pay Rambus an up-front licensing fee in addition to future royalty payments. The new agreements also cover memory controllers that interface to SDRAM and DDR SDRAM. Specific terms of the deals were not announced.

In announcing these licensing arrangements, Rambus made a point of noting that its DDR SDRAM royalties are higher than those for RDRAM. Though DDR SDRAM will likely remain less expensive to manufacture than RDRAM for some time to come, the higher royalties on DDR SDRAM will reduce the inherent cost advantage of that memory type. Some of the memory and core-logic vendors that are currently pursuing DDR memory as an alternative to RDRAM may now change course.

We expect most other makers of memory chips and controllers to come to terms with Rambus over the next few months. With Toshiba and Hitachi now firmly in the Rambus camp, it is unlikely that other chip makers will dispute the validity of the Rambus patents. It now appears that Rambus will have a significant share in the memory market—no matter where the market goes from here. \diamondsuit

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