

TI develops 45-nm chip production process

June 12 2006

Texas Instruments said Monday it had developed a 45-nanometer wet lithography process that doubles the number of chips it can produce on a silicon wafer.

The breakthrough should lead to a ramping up of output from the 45-nm process that is poised to become the industry standard for next-generation wireless-phone processors and other devices.

"This gives our customers early access to faster, smaller and lower-power products," TI Vice President Hans Stork said prior to a conference in Hawaii.

The 45-nm process is expected to lead to such services as 3-D graphics for video conferencing and improved cell-phone video quality without a corresponding increase in size or power consumption.

The new manufacturing process includes a first-time use of 193-nm immersion photo-lithography to accomplish the density goals that can't be reached through dry lithography at 45 nm. Immersion lithography places a thin layer of liquid between the wafer and the lens, which makes it easier to transfer the tiny circuit designs.

Copyright 2006 by United Press International

Citation: TI develops 45-nm chip production process (2006, June 12) retrieved 26 April 2024

from <https://phys.org/news/2006-06-ti-nm-chip-production.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.