

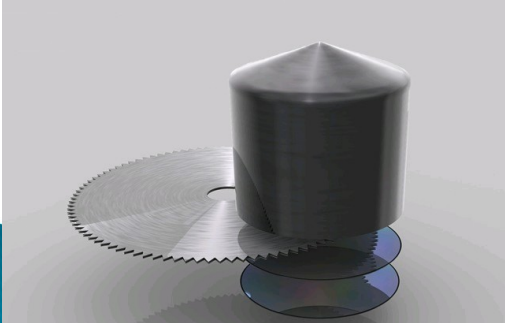
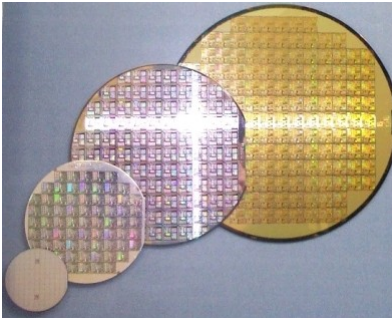


TSMC's 28-nm process in trouble, says analyst
Peter Clarke

EE Times
20-1-2012

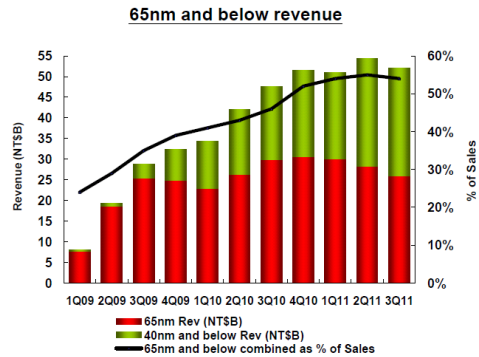
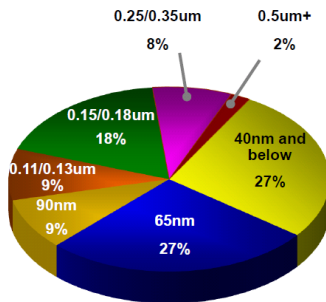



- ▶ Fundada en 1987
- ▶ Mayor fabricante mundial
 - Una fáb. 150 mm (Fab 2)
 - Cuatro fáb 200 mm (Fabs 3, 5, 6, 8)
 - Dos de 300 mm (12 inches) (Fabs 12, 14)

TSMC

► Ganancias por tecnología

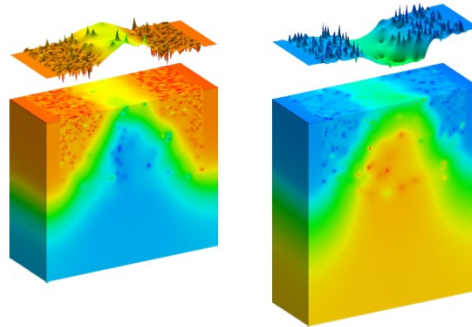


La noticia

- foundry Taiwan Semiconductor Manufacturing Co. Ltd. is in trouble with its 28-nm manufacturing process technologies, which are not yet yielding well
- 10 designs in manufacture from seven companies. "We're now hearing none of them work; no yield anyway,"
- 2 percent of 4Q11's
- Clientes: nVIDIA, Xilinx, AMD...

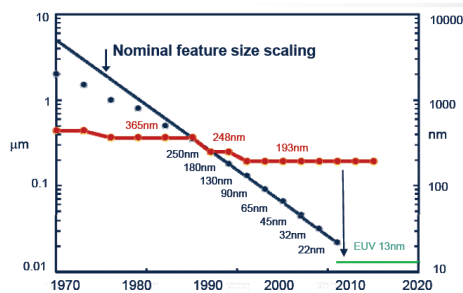
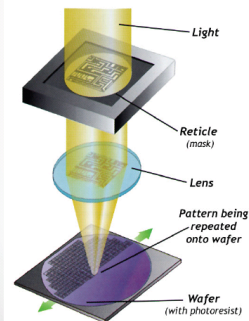
Problemas con <40 nm

- ▶ Intel: 32 nm OK
- ▶ Global foundries, 28–32 nm Problemas



¿Por qué?

Lithography issues:
193nm wavelength for
lines as small as 30nm!



Light projected through a gap



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