

TAKAMIYA LAB.



Small chip that intelligently manages large power

Department of Informatics and Electronics
Centre for Interdisciplinary Research on Micro-Nano Methods (CIRMM)

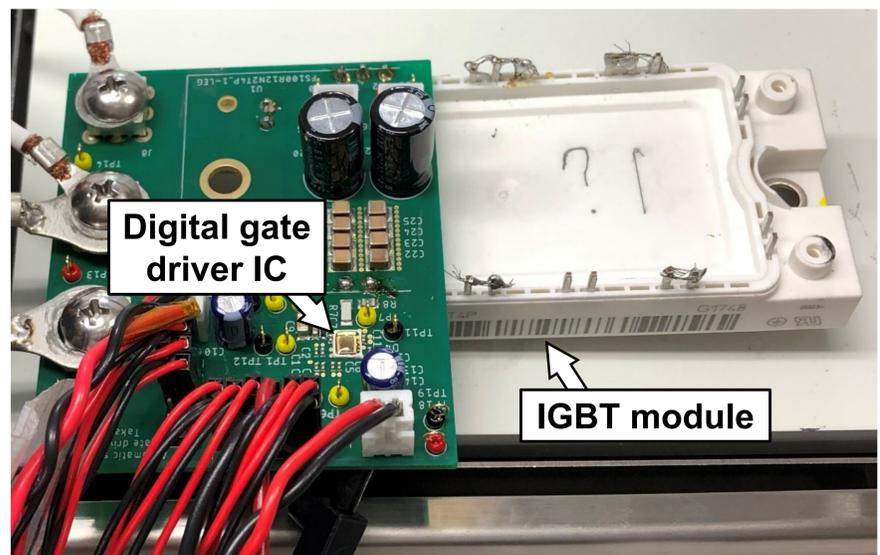
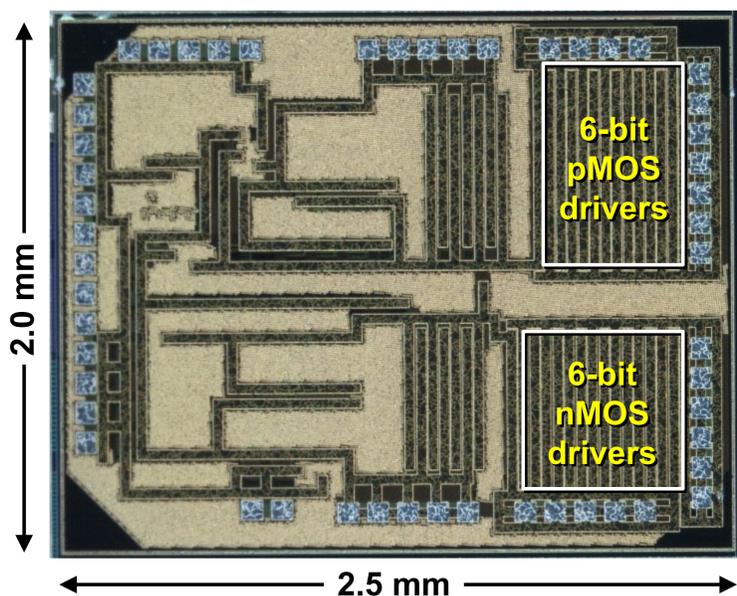
Department of Electrical Engineering and Information Systems, Graduate School of Engineering

Integrated Power Management

<http://icdesign.iis.u-tokyo.ac.jp/en/>

To achieve a carbon-free world by 2050, we are conducting research on **integrated power management**, in which a small IC chip can intelligently handle large amounts of power, with the goal of making power electronics systems more energy-efficient.

World's first IC chip that controls power semiconductors for energy saving
—Automatic waveform changing gate driver IC chip reduces energy loss by 49%. —



Hybrid DC-DC converters for automotive applications
(Mixed inductors and capacitors reduce losses.)

