

DOCKET NO.: 2003195-00123US3 and US4

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UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.  
Petitioner

v.

GODO KAISHA IP BRIDGE 1  
Patent Owner.

Case IPR2017-01843<sup>1</sup>

**PETITIONER'S DEMONSTRATIVES FOR ORAL ARGUMENT**

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<sup>1</sup> Case IPR2017-01844 has been consolidated with this proceeding.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**  
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**TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.**

**v.**

**GODO KAISHA IP BRIDGE 1**

*Inter Partes Review*

**Nos. IPR2017-01843 and IPR2017-01844**

**U.S. Patent No. 7,893,501**

**PETITIONER'S ORAL ARGUMENT**

# Proposed Agenda

- Technology Background
- Overview of the '501 Patent
- Overview of the Prior Art
- Undisputed Issues
- Obviousness of Claims
- Issues Raised by Patent Owner and Responses
  - Claim 1: whether applied prior art discloses claimed “protruding gate”

# Technology Background

# Basic Elements of a MISFET (Transistor)

SFETs include:

an active region made of a substrate, located between the shallow trench isolation regions (STI);

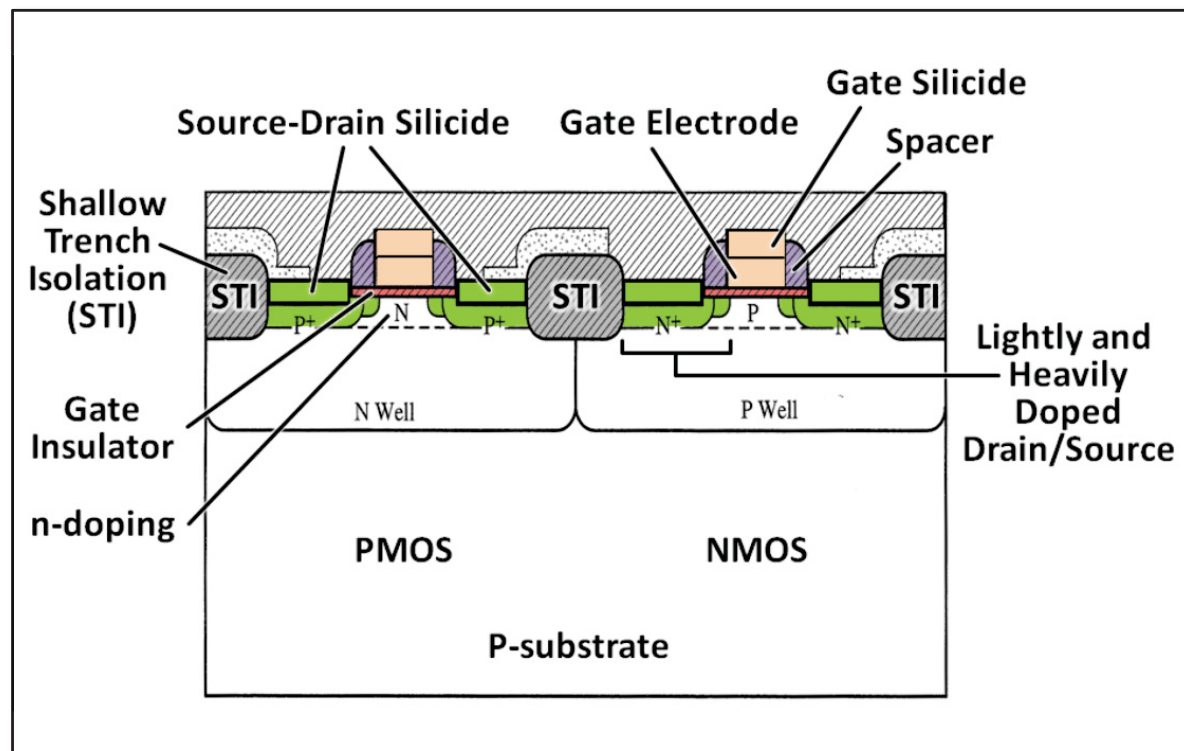
a gate insulating film (red);

a gate electrode (orange);

source and drain regions including a silicide layer (green); and

other elements such as sidewalls (purple)

Example metal-insulator-semiconductor field effect transistors (MISFETs) from Plummer textbook (1st ed. 2000):



*Plummer at 86 (Ex. 1209) (annotated); see also Petition at 6-7; Shanfield Decl. (Ex. 1202), ¶¶33-38; Rabaey at 42-43 (Ex. 1211)*

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