

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY
LIMITED and GLOBALFOUNDRIES U.S. INC.,
Petitioners,

v.

GODO KAISHA IP BRIDGE 1,
Patent Owner.

Case IPR2016-01249
Patent 6,538,324 B1

Before JUSTIN T. ARBES, MICHAEL J. FITZPATRICK, and
JENNIFER MEYER CHAGNON, *Administrative Patent Judges*.

FITZPATRICK, *Administrative Patent Judge*.

ORDER
Conduct of the Proceeding
37 C.F.R. § 42.5

Patent Owner, Godo Kaisha IP Bridge 1, filed a contingent Motion to Amend, seeking to substitute proposed claims 11–13 for issued claims 5, 9, and 7, respectively. Paper 16 (“Amend Mot.”), 1–2. Subject to the condition below, we intend to grant the Motion to Amend with respect to claim 13 in a forthcoming final written decision.

The condition is that proposed claim 13 be re-presented in independent form and with all three instances of “being composed of” replaced with “consisting essentially of,” given Patent Owner’s representation that the former in fact means the latter. *See, e.g.*, Amend Mot. 7.

Claim 13, as so rewritten, is as follows:

13. A multi-layered wiring structure comprising a barrier film which prevents diffusion of copper from a copper wiring layer formed on a semiconductor substrate,

said barrier film having a multi-layered structure of first and second films,

said first film consisting essentially of crystalline metal containing nitrogen therein, the nitrogen being present throughout the first film,

said second film consisting essentially of amorphous metal nitride,

said barrier film being constituted of common metal atomic species,

said first film being formed on said second film,

said first film in direct contact with said second film,

said first film containing nitrogen in a smaller content than that of said second film,

wherein said first film has a thickness in the range of 60 angstroms to 300 angstroms both inclusive;

wherein said first film consisting essentially of crystalline metal containing nitrogen therein is a solid solution; and

a copper film is formed on and in direct contact with said first film.

Accordingly, it is

ORDERED that Patent Owner may file a short paper supplementing its Motion to Amend to re-present proposed claim 13 in the form set forth above, without argument; and

FURTHER ORDERED that such paper shall be filed no later than December 15, 2017.

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