

In The Matter Of:
Taiwan Semiconductor Manufacturing Co., LTD v.
GODO Kaisha IP Bridge 1

Stanley R. Shanfield, Ph.D.
Vol. II
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IP Bridge Exhibit 2010
TSMC v. Godo Kaisha IP Bridge 1

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2 PAGES: 187-447
3 EXHIBITS: 2001-2006

4 UNITED STATES PATENT AND TRADEMARK OFFICE
5 BEFORE THE PATENT TRIAL AND APPEAL BOARD
6 CASE NO. IPR2017-01841
7 PATENT 7,893,501

8 _____
9 TAIWAN SEMICONDUCTOR MANUFACTURING)
10 CO., LTD,)
11 Petitioner,)
12 vs.)
13 GODO KAISHA IP BRIDGE 1,)
14 Patent Owner.)
15 _____

16 DEPOSITION OF STANLEY R.
17 SHANFIELD, PhD, called as a witness by and on
18 behalf of the Patent Owner, pursuant to the
19 applicable provisions of the Federal Rules of Civil
20 Procedure, before P. Jodi Ohnemus, RPR, RMR, CRR,
21 CA-CSR #13192, NH-LSR #91, MA-CSR #123193, and
22 Notary Public, within and for the Commonwealth of
23 Massachusetts, at the offices of WilmerHale, 60
24 State Street, Boston, Massachusetts, on Wednesday,
25 March 28, 2018, commencing at 9:00 a.m.

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1 APPEARANCES: (CONT'D)
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1 **you did and which I did?**
2 Q. Yes.
3 **A. Okay.**
4 Q. Doctor Shanfield, getting started this
5 morning, is there anything that you want to change
6 or clarify in your prior testimony?
7 **A. No.**
8 Q. Since we started this deposition
9 yesterday, have you discussed your deposition or
10 the subject matter of these proceedings with your
11 counsel?
12 **A. No, I have not.**
13 Q. Did you discuss the deposition or the
14 subject matter of these proceedings with your
15 counsel last night?
16 **A. No.**
17 Q. This morning?
18 **A. No.**
19 Q. I'm going to hand you what's marked
20 Exhibit 2202.
21 (Exhibit 2202, previously marked.)
22 Q. And, Doctor Shanfield, do you understand
23 that you're still under oath from yesterday's
24 deposition?

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1 STANLEY R. SHANFIELD, PhD, having
2 satisfactorily been identified by
3 the production of a driver's license,
4 and being previously sworn by the Notary
5 Public, was examined and testified as
6 follows to continued interrogatories
7 **BY MR. MILLER:**
8 Q. Good morning, Doctor Shanfield.
9 **A. Good morning.**
10 **MR. MILLER:** Before we get started, a
11 couple of housekeeping items.
12 Counsel, I was going to put a deposition
13 stamp on the exhibits that we annotated
14 yesterday --
15 **MR. SMITH:** Okay.
16 **MR. MILLER:** Just so that when they're
17 filed, there's a separate one that kind of follows
18 the record. Can we mark the '501 patent with the
19 2001 label.
20 ([Exhibit 2001](#), US Patent 7,893,501.)
21 **MR. MILLER:** Let's mark the Igarashi, also
22 annotated with the 2002 label.
23 ([Exhibit 2002](#), US Patent 2002/0145156 A1.)
24 **A. It's clear in the record which annotation**

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1 **A. Yes, I do understand that.**
2 Q. Are you familiar with this reference,
3 Doctor Shanfield?
4 **A. Yes. I am familiar with it.**
5 Q. In what context are you familiar with this
6 reference?
7 **A. I believe this is in the record of the**
8 **proceedings to -- for the '501 patent and -- from**
9 **the patent office.**
10 Q. Did you review this reference in preparing
11 your declaration?
12 **A. I looked at it.**
13 Q. And do you have a specific memory about
14 reviewing this reference?
15 **A. Yes.**
16 Q. What is that specific memory?
17 **A. I took a look at it. I didn't read it in**
18 **depth, but I remember it.**
19 Q. I'm going to hand you Exhibit 2203.
20 (Exhibit 2203, previously marked.)
21 Q. Are you familiar with this reference,
22 Doctor Shanfield?
23 **A. Yes.**
24 Q. In what context are you familiar with the

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1 reference?
2 **A. Same context.**
3 Q. Did you review this reference prior to
4 filing your declaration?
5 **A. Yes.**
6 Q. What claim construction standard did you
7 use in your analysis?
8 **A. (Witness reviews document.) So as I**
9 **explain in paragraph 57 on page 29 of -- this is my**
10 **declaration 1002, "I have applied the broadest**
11 **reasonable interpretation standard."**
12 Q. What is your understanding of the broadest
13 reasonable interpretation?
14 **A. Well, I want to point out, first of all,**
15 **that my analysis actually is not even dependent on**
16 **application of the broadest reasonable standard,**
17 **because I believe the prior art teaches each claim**
18 **limitation under any reasonable interpretation of**
19 **the claim terms.**
20 Q. What do you mean when you say that your
21 analysis is not even dependent on application of
22 the broadest reasonable standard?
23 **A. It's the broadest reasonable**
24 **interpretation, not standard, and the point being**

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1 **that the broadest reasonable interpretation, just**
2 **as it suggests, is what someone of skill in the art**
3 **would interpret a term in, you know, in the context**
4 **of this '501 patent, or whatever document we're**
5 **reviewing.**
6 Q. So I'm still not clear what it means when
7 you say that -- in paragraph 57, "My analysis is,
8 therefore, not dependent on application of the
9 broadest reasonable interpretation standard."
10 **A. Well, it's essentially what it says; that**
11 **I -- I've used the broadest reasonable**
12 **interpretation standard, but I've noticed that I**
13 **don't -- wouldn't even have needed to use it. I**
14 **could have taken any reasonable interpretation of**
15 **the claim terms and still come to the same**
16 **conclusions.**
17 **But, nevertheless, I use broadest**
18 **reasonable interpretation standard in looking at**
19 **the claim terms.**
20 Q. Can the broadest reasonable interpretation
21 be narrower than the plain and ordinary meaning?
22 **MR. SMITH: Objection.**
23 **A. I think you're comparing apples and**
24 **oranges. Plain and ordinary meaning applies to a**

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1 **sentence, phrase, that is interpreted as -- you**
2 **know, and what does it mean?**
3 **Broadest reasonable interpretation is the**
4 **context of a document -- for example a '501 or a**
5 **set of claims -- of what's a reasonable**
6 **interpretation of those claims and kind of has the**
7 **collective interpretation requirement.**
8 **So I don't -- I can't convolve those --**
9 **those two meanings.**
10 Q. So a claim term can have a plain and
11 ordinary meaning; is that correct?
12 **A. I think a claim term can have a plain and**
13 **ordinary meaning or a claim phrase or -- yes.**
14 Q. Can the broadest reasonable interpretation
15 of a claim term be narrower than the ordinary
16 meaning of that claim term?
17 **MR. SMITH: Objection.**
18 **A. Once again, there's two different concepts**
19 **at play. So that isn't a sensible question, so I**
20 **can't answer you.**
21 Q. Could you explain why you think it's not a
22 sensible question.
23 **A. I think I already did. I'll repeat**
24 **myself.**

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1 **Broadest reasonable interpretation**
2 **standard for the claim terms means I take it in the**
3 **context of the specifications, of my view of what a**
4 **person of ordinary skill in the art would interpret**
5 **the language in the claims. A plain -- the plain**
6 **and ordinary meaning I generally use in a phrase --**
7 **a -- some words that is specific to that phrase or**
8 **that -- those words that, as it -- you know, it**
9 **says it's the plain and ordinary meaning of those**
10 **words.**
11 **So it's -- it's not -- it's not the same**
12 **as the broadest reasonable interpretation standard.**
13 Q. Does a claim term have a broadest
14 reasonable interpretation?
15 **A. That's the standard I'm applying to the**
16 **claim terms.**
17 Q. So did you identify what the broadest
18 reasonable interpretation for the claim terms is?
19 **A. Could you repeat that question.**
20 **Did I? -- say it again.**
21 Q. Does each claim term have a broadest
22 reasonable interpretation?
23 **A. The broadest reasonable interpretation**
24 **standard is a standard I apply to the claim terms**

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1 based on the specification, what I think a person
2 of ordinary skill in the art at the time would have
3 viewed the -- or interpreted those claim terms. So
4 it's a standard that's being applied everywhere.
5 Q. So is there a broadest reasonable
6 interpretation for the claim terms?
7 A. Like I said, I'm applying the broadest
8 reasonable interpretation standard for the claim
9 terms. I'm maintaining that standard in my mind
10 and applying it.
11 Q. When you apply the broadest reasonable
12 interpretation standard, can you have an
13 interpretation that is broader than the ordinary
14 meaning?
15 MR. SMITH: Objection.
16 A. Once again, I think you're asking a
17 nonsensical question. I use the ordinary meaning
18 of claim terms in applying the broadest reasonable
19 interpretation standard. But I'm also reading the
20 specification, for example, in applying the
21 broadest reasonable interpretation standard.
22 Q. In your opinion is there a broadest
23 reasonable interpretation for the claim terms?
24 A. Well, I would phrase it as in my opinion

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1 -- or essentially I've applied the broadest
2 reasonable interpretation standard to the claim
3 terms, and -- and my opinion about the -- the
4 challenge claims is based on that standard.
5 Q. In applying the broadest reasonable
6 interpretation standard, can you have a claim term
7 that is narrower than the plain and ordinary
8 meaning of the claim term?
9 MR. SMITH: Objection.
10 A. That's a not -- not a sensical question.
11 I'm using ordinary meaning of claim terms as part
12 of applying broadest reasonable interpretation, but
13 they're separate entities or separate acts. So
14 ordinary meaning is part of how I apply the
15 broadest reasonable interpretation.
16 Q. What do you mean when you say that they
17 are "separate entities or separate acts"?
18 A. I'd -- I'll withdraw that characterization
19 and simply say that I'm applying -- or using
20 ordinary meaning of the claim terms as part of
21 applying broadest -- the broadest reasonable
22 interpretation standard.
23 Broadest reasonable interpretation
24 standard also requires that I read the

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1 specification, for example.
2 Q. Do the usage of the terms in the
3 specification change the plain and ordinary meaning
4 of the claim terms?
5 MR. SMITH: Objection.
6 A. Could you repeat that question.
7 Q. Does the usage of the terms in the
8 specification -- let me rephrase.
9 Does the usage of the claim terms in the
10 specification change the plain and ordinary meaning
11 of the claim terms?
12 MR. SMITH: Objection.
13 Q. Doctor Shanfield?
14 A. Uh-huh. I'm thinking about it.
15 I think there's always a context.
16 Obviously words can have more than one ordinary
17 meaning, but in -- in general it was clear to me
18 that -- what -- what the ordinary meaning was. In
19 applying the broadest reasonable interpretation
20 standard, however, I needed to understand the
21 specification and what the -- the point was in
22 the -- the teachings and what the context was that
23 was being discussed.
24 Q. Doctor Shanfield, I'm still not clear.

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1 Does the usage of the claim terms in the
2 specification change the plain and ordinary meaning
3 of the claim terms?
4 MR. SMITH: Objection.
5 A. Once again, I think you're asking almost a
6 tautology. The plain and ordinary meaning is the
7 plain and ordinary meaning, and whether it was in
8 the specification or in the claims. So I applied
9 claim and ordinary -- plain and ordinary meaning to
10 the -- the phrase or the sentence.
11 So your question is a tautology.
12 Q. When you say "my analysis is, therefore,
13 not dependent on application of the broadest
14 reasonable interpretation standard," is that based
15 on the fact that you applied the plain and ordinary
16 meaning?
17 A. Once again, you seem to be confusing
18 broadest reasonable interpretation standard and
19 plain and ordinary meaning. So your question isn't
20 meaningful to me.
21 Q. What is --
22 A. And I can re-explain the difference.
23 Q. What is your understanding of the
24 relationship between the broadest reasonable

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