

United States District Court,
N.D. California.

SAMSUNG ELECTRONICS CO., LTD,
Plaintiff.

v.

TESSERA TECHNOLOGIES, INC,
Defendant.

Tessera, Inc,
Counter-Claimant.

v.

Samsung Semiconductor, Inc.; Samsung Electronics America, Inc.; Samsung Electronics Co. Ltd,
Counter-Defendants.

No. C 02-5837 CW

Jan. 8, 2004.

Matthew D. Powers, Weil Gotshal & Manges LLP, Silicon Valley Office, Redwood Shores, CA, for
Plaintiff.

Christopher J. Harnett, Kenneth B. Herman, Bryan J. Vogel, Sasha G. Rao, Hojin Chang, Fish & Neave,
New York, NY, for Defendant.

Terrence J.P. Kearney, Wilson Sonsini Goodrich and Rosati a Professional Corporation, Gregory R.
Bellomy, Fish & Neave, Robert J. Goldman, Ropes & Gray LLP, Palo Alto, CA, for Defendant/Counter-
Claimant.

David Greenbaum, Weil Gotshal & Manges LLP, New York, NY, Barbara W. Shih, Kimberly Anne
Schmitt, Nicholas Brown, Colette Elly Vogele, Vogele & Associates, San Francisco, CA, for
Plaintiff/Counter-Defendant.

Steven S. Cherenky, Weil Gotshal & Manges LLP, Silicon Valley Office, Redwood Shores, CA, for
Defendant/Counter-Claimant/Plaintiff/Counter-Defendant.

ORDER CONSTRUING DISPUTED CLAIMS AND TERMS

CLAUDIA WILKEN, District Judge.

Defendant and Counter-claimant Tessera, Inc. (Tessera) asks the Court to construe the claims of its
semiconductor chip package patents, U.S. Patent Nos. 5,679,977 ('977 patent), 5,852,326 ('326 patent),
5,950,304 ('304 patent), 6,133,627 ('627 patent), 6,433,419 ('419 patent) and 6,465,893 ('893 patent).
Plaintiffs and Counter-defendants Samsung Semiconductor, Inc., Samsung Electronics America, Inc. and

Samsung Electronics Co., Ltd. (collectively, Samsung) proffer alternate constructions. The matter was heard on November 12, 2003. Having considered the papers filed by the parties and oral argument on the motion, the Court construes the claims as follows.

BACKGROUND

Many electronic devices, such as personal data assistants and personal computers, operate using semiconductor chips. In a semiconductor chip assembly, the silicon chip is encapsulated in a package. The silicon chip and the package that houses it are then mounted on a substrate, such as a printed circuit board (PCB). Semiconductor chip manufacturers aim to minimize the size of the package and the silicon chip.

The semiconductor chip package is typically mounted on a PCB substrate with solder. During the operation of a device, electrical power heats the semiconductor chip package and the PCB substrate. When the power is turned off both the semiconductor chip package and the PCB substrate cool. This process of heating and cooling is called thermal cycling. The semiconductor chip package expands at a different rate than the PCB substrate on which it is mounted. The differential expansion of the semiconductor chip package and PCB substrate can place severe mechanical stress on the solder joints between the chip package and the PCB substrate.

The six patents at issue describe semiconductor chip assemblies that compensate for the difference in thermal expansion rates between the semiconductor chip package and the PCB substrate. The semiconductor chip package includes a silicon chip with electrical connection pads called "contacts," solder pads called "terminals" which connect the package to external solder balls and "leads," which are the electrical conductors that connect the chip contacts to the solder terminals. The package includes a flexible sheetlike element which deforms to allow movement of the terminals relative to the chip, compensating for the differential thermal expansion rates of the semiconductor chip package and the PCB substrate.

Chip packages can be classified by the orientation of the contacts on the chip relative to the package substrate. In a "face-up" package, the contacts on the chip face away from the package substrate. In a "face-down" package, the contacts on the chip face towards the package substrate. Chips may also be "stacked," a combination of face-up and/or face-down.

On April 28, 1993, Dr. Igor Khandros and Dr. Thomas Distefano filed an application for a patent which later issued as the '977 patent, for semiconductor chip assemblies, methods of making same and components for same. Goldman Dec. Ex. 1 ('977 patent). The '977 patent was later assigned to Tessera. The applications for the remaining patents in suit, all of which are continuations of the '977 application, were filed between May, 1997 and October, 2000. The '326 patent for "Face-Up Semiconductor Chip Assembly" issued on December 22, 1998. *Id.* Ex. 2. The '419 patent for "Face-Up Semiconductor Assemblies" issued August 13, 2003. *Id.* Ex. 3. The '893 Patent for "Stacked Chip Assembly" issued October 15, 2002. *Id.* Ex. 4. The '627 patent for "Semiconductor Chip Package with Center Contacts" issued October 17, 2000. *Id.* Ex. 5. The '304 patent for "Methods of Making Semiconductor Chip Assemblies" issued September 14, 1999. *Id.* Ex. 6.

The present dispute concerns claims 5, 6, 18, 21, and 22 of the '977 patent; claims 1, 3, 11, 12, 21 and 26 of the '326 patent; claims 2, 4, 9, 13, 15, 18, and 24 of the '419 patent; claims 1, 2, 6, 10, 11, 13, 18, 22, 26, 31 and 63 of the '893 patent; claims 1, 4, 6, 10, and 11 of the '626 patent; and claims 1, 5 and 7 of the '304 patent. There are fourteen disputed claim terms at issue.

The parties agree that claim 1 of the '977 patent is a representative claim. Although claim 1 is not an asserted claim, claims 5, 6, and 22 of the '977 patent depend upon claim 1 and are asserted. Seven of the fourteen disputed claim terms appear in claim 1 of the '977 patent. Those terms appear in bold type below. Claim 1 reads:

A **semiconductor assembly** comprising a semiconductor chip having a plurality of surfaces and having contacts on at least one of said surfaces and a **flexible** sheetlike element having **terminals thereon**, and flexible **leads** electrically connecting said terminals to said contacts wherein said sheetlike element and at least some of said terminals overlie one said surface of said chip and said sheetlike element **bears upon** such surface of said chip, said terminals are **movable** which respect to said chip and said contacts, said flexible leads and said flexible sheetlike element being adapted to deform to accommodate movement of said terminals with respect to said contacts.

The other claim terms at issue appear in bold type in the claims reproduced below.

Claim 2 of the '419 patent discloses:

a **backing element** having terminals and having electrically conductive lead portions electrically connected to said terminals, said backing element having a central region aligned with said chip and disposed between said rear surface of said chip and said substrate, said terminals of said backing element being bonded to said contact pads on said substrate, at least some of said terminals of said backing element being disposed in said central region of said backing element and being movable with respect to the chip **to compensate for differential thermal expansion of the chip and substrate ...**

Claim 1 of the '893 patent discloses:

a second semiconductor chip having a front surface and contacts on said front surface, and said rear surface of said second semiconductor chip being **juxtaposed** with said front surface of said first semiconductor chip.

Claim 21 of the '326 patent discloses a semiconductor assembly "comprising a dielectric **encapsulant** covering at least a portion of said bonding wires and at least a portion of said edges and said front surface of said chip." Claim 4 of the '627 patent discloses a chip assembly which "includes a **compliant** layer of a **low modulus material**, said **compliant** layer being disposed beneath said terminals. Claim 6 of the '627 patent discloses a chip assembly "wherein said compliant layer is formed from **elastomeric material**."

LEGAL STANDARD

The interpretation of patent claims is a question of law to be decided by the Court. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 371-73, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). To interpret the claims of a patent, the Court must consider the language of the claims, the patent specification and the prosecution history. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed.Cir.1995) (citations omitted), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

In construing a claim, the Court must look first to the specific words of the claim. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). Words in the claim are given their ordinary meaning unless the inventor gives special meaning to them in the specification or prosecution history. *See id.* The

specification may act as a dictionary when it defines terms in the claims, whether expressly or impliedly. *See id.* However, if the inventor gives a term a special meaning, that meaning must be reasonably clear and used consistently within the patent itself. *See Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889 (Fed.Cir.1984); *see also Laitram Corp. v. Morehouse Indus., Inc.*, 143 F.3d 1456, 1463 (Fed.Cir.1998) (statement made in the "Summary of the Invention" supports the construction of a claim).

Interpretation of a disputed claim term also requires reference to the other claims. *See Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1579 (Fed.Cir.1995). Each claim term must be interpreted consistently in all claims. *See id.* Ordinarily, the language of one claim should not be interpreted so as to make another claim, such as a claim dependent on the first claim, identical in scope. Claims should be interpreted to render all of the limitations in the claim meaningful. *See Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1562 (Fed.Cir.1991); *see also Kraft Foods, Inc. v. Int'l Trading Co.*, 203 F.3d at 1362, 1366 (Fed.Cir.2000) (two patent claims are presumptively of different scope). All elements of a claim must have a meaning. *See Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997). Nevertheless, "[w]hether or not claims differ from each other, one can not interpret a claim to be broader than what is contained in the specification and claims as filed." *Tandon Corp. v. United States ITC*, 831 F.2d 1017, 1024 (Fed.Cir.1987).

Claims of a patent are generally not limited to the preferred embodiment or to the examples listed within the patent specification. *See Karlin Technology, Inc. v. Surgical Dynamic, Inc.*, 177 F.3d 968, 973 (Fed.Cir.1999); *Modine Mfg. Co. v. United States Int'l Trade Comm'n.*, 75 F.3d 1545, 1551 (Fed.Cir.1996). However, claim interpretation that would exclude the preferred embodiment is rarely the correct interpretation. *See Hoechst Celanese Corp. v. BP Chemicals Ltd.*, 78 F.3d 1575, 1581 (Fed.Cir.1996) (*cert. denied* 519 U.S. 911, 117 S.Ct. 275, 136 L.Ed.2d 198 (1996)).

No other evidence is required if the language of the patent and its prosecution history clearly set forth the meaning of a term. *See Vitronics*, 90 F.3d at 1582-83. However, extrinsic evidence may be received in order to explain scientific principles and terms. *See Markman*, 52 F.3d at 980. Extrinsic evidence may also be used to demonstrate what would have been known to one skilled in the art at the time of the invention. *See id.* Finally, extrinsic evidence may assist the court in ascertaining " 'the true meaning of the language employed' in the patent." *See id.* (quoting *Seymour v. Osbourne*, 11 Wall. 516, 78 U.S. 516, 546, 20 L.Ed. 33 (1871)). Extrinsic evidence may not be employed to support an interpretation that contradicts the plain language of the claims. *See Markman*, 52 F.3d at 981.

If the language of the claims, the specification and the prosecution history do not provide a clear definition for a claim limitation, the notice function of the patent claim is best served by construing the claim narrowly. *See Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1580-81 (Fed.Cir.1996).

A patent claim is invalid for indefiniteness if "those skilled in the art would [not] understand what is claimed when the claim is read in light of the specifications." *Morton v. Int'l. Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470 (Fed.Cir.1993); *Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1217 (Fed.Cir.1985); *Shatterproof Glass Corp. v. LibbeyOwens Ford Co.*, 758 F.2d 613, 624 (Fed.Cir.1985). "Claims must 'reasonably apprise those skilled in the art' as to their scope and be 'as precise as the subject matter permits.' " *Amgen*, 927 F.2d at 1217 (citing *Shatterproof Glass*, 758 F.2d at 624).

DISCUSSION

I. Terms Previously Construed by This Court

This is not the first time that certain of the asserted claims have been litigated. Of the fourteen disputed claim terms now before the Court, six were construed by this Court in *Texas Instruments, Inc. v. Tessera, Inc.*, No. 00-2114 CW, Order Construing Claims (*TI* Order), Goldman Dec. Ex. 7. FN1 The *TI* Order construed terms from the '977 and ' 326 patents. All six patents in suit here are continuation applications based on the ' 977 patent. They share a common disclosure with '977 but include claims of varying scope. The terms construed by the Court in the *TI* Order recur in the asserted claims in this action. The six terms interpreted by this Court in the *TI* Order are "flexible," "lead," "thereon," "bears upon," "movable," and "backing element."

FN1. Some terms were also construed by the United States International Trade Commission (ITC) *In the Matter of Certain Semiconductor Chips with Minimized Chip Package Size and Products Containing Same*, Investigation No. 337-TA-432. Prince Corrected Dec. Ex. P. (*Sharp*).

The principle of *stare decisis* guides the Court's construction of patent claims. In *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), the Supreme Court recognized "the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court." *Markman*, 517 U.S. at 390. The Supreme Court assigned claim construction to courts rather than juries to ensure the uniformity necessary for patents to provide public notice of inventions, encourage innovation and protect the property rights of patentees. *Id.*

Samsung insists that because it was not a party in *TI*, it should not be bound by the constructions in the *TI* Order. Samsung, as a new and independent party, argues that issue preclusion does not apply and the *TI* Order is not binding. Samsung's position is not well-taken. Although issue preclusion does not apply, *stare decisis* allows the Court discretion to adopt, or not adopt, its previous constructions. The Supreme Court considered this very situation in *Markman*, and explained that one rationale for claim construction by courts is to establish uniformity of claims in a wider universe of situations than those in which issue preclusion applies. *Id.* at 391. In other words, *Markman* urges the application of a given court's previous claim construction to a new and independent infringement defendant in the interest of "intra-judicial uniformity". *Id.*

Samsung relies on *Texas Instruments, Inc. v. Linear Tech. Corp.*, 182 F.Supp.2d 580, 581 (E.D.Tex.2002) and *Kollmorgen Corp. v. Yaskawa Elec. Corp.*, 147 F.Supp.2d 464 (W.D.Va.2001) in arguing that the Court should reconsider its previous construction of asserted terms. However, the cases are not on point. In *Linear*, the court declined to apply an earlier claim construction by another judge in the jurisdiction. *Linear*, 182 F.Supp.2d at 589. In *Kollmorgen*, the court declined to apply an earlier claim construction by a court in a different jurisdiction. *Kollmorgen*, 147 F.Supp.2d at 466. In the instant case, Samsung asks the Court to revise its own construction of identical claim terms. The Court has considered each party's arguments for reconsidering the constructions in the *TI* Order and construes the asserted terms as follows:

A. "Flexible"

Tessera proposes that the Court adopt the *TI* construction of the term "flexible." The *TI* Order construed flexible to mean pliable, but not necessarily fully flexible in the completed assembly. *See TI* Order at 11. Samsung proposes that flexible be construed to mean "capable of flexing." Both parties' experts agree that the term "flexible" is generally understood in the field by its ordinary, dictionary meaning. Prince Dec. at

para. 26; Cherensky Dec. Ex. B at 135:23-136:14. The Court has determined that the term "flexible" does not need to be construed at this time. However, consistent with the *TI* Order, "flexible" does not require flexibility in the completed assembly.

B. "Lead"

Tessera proposes that the Court adopt the construction of "lead" from the *TI* Order: "an electrical conductor, made up of electrically conductive material, but not shaped as a mass." *TI* Order at 13. Tessera relies on the specification, which distinguishes between "leads" and "masses." '977 patent at col. 10:45-51. Samsung proposes an alternative construction: "An electrical conductor that is long with respect to its cross section, that makes an electrical connection between two points along its lengthwise direction." Samsung opposes Tessera's negative definition "not a mass." However, the parties agree on the description "long and thin." Therefore, the Court construes the term "lead" to mean an electrical conductor, made up of electrically conductive material, long and thin, not shaped as a mass. *See TI* Order at 13.

C. "Thereon"

Tessera proposes that the *TI* construction of "thereon" be applied here: "The terminals are on or upon a single layer of the sheetlike element. When there are multiple layers in the sheetlike element and the terminals are thereon one of the layers, they are thereon the sheetlike element even though they must also be under another of its layers." *See TI* Order at 15. Samsung's proposed construction of "thereon" is "on or upon."

In urging the Court to adopt the *TI* construction, Tessera argues that Samsung seeks to ignore the "layering" issue that was previously argued and resolved by this Court in the *TI* Order. However, Tessera's proposed construction for "thereon" would also effectively mean "therein," which is inconsistent with the specifications. *See* '977 patent col. 10:31-33; 14:8-10. Thus, the Court construes "thereon" to mean "on or upon." FN2

FN2. The Court acknowledges that the adopted construction deviates from that in the *TI* Order.

D. "Bears Upon"

Tessera's proposed construction of "bears upon" is "resting upon and does not require physical contact with." This is the *TI* construction. *See TI* Order at 17. Samsung proposes "resting upon." However, the specification describes embodiments, with layers between the chip and package substrate, that "bear upon" without making physical contact. '977 patent col. 21:63-22:1. The Court construes "bears upon" to mean "resting upon and does not require physical contact with."

E. "Movable"

Tessera proposes that the Court adopt the *TI* construction of "movable": "In the operation of the assembly, the terminals are capable of being displaced relative to the chip by external loads applied to the terminals, to the extent that the displacement appreciably relieves mechanical stresses, such as those caused by differential thermal expansion which would be present in the electrical connections absent such displacement." *See TI* Order at 19. Samsung proposes "capable of being moved."

The Court finds that Tessera's proposed construction is more appropriate. Movable, in the context of the claims at issue, is a term of degree. The claim term means movable enough to appreciably relieve mechanical stresses. Thus, "movable" means that "in the operation of the assembly, the terminals are capable of being displaced relative to the chip by external loads applied to the terminals, to the extent that the displacement appreciably relieves mechanical stresses, such as those caused by differential thermal expansion which would be present in the electrical connections absent such displacement."

F. "Backing Element"

Tessera proposes that the Court construe "backing element", as in the *TI Order*, to mean: "An element overlying the rear surface of the chip that is thin in comparison to its length and width and generally planar or flat (but does not need to be flexible)." *See TI Order* at 20. Samsung argues that the term is actually a "means plus function" claim, and should be construed according to 35 U.S.C. s. 112 para. 6.

The Court rejects Samsung's argument that "backing element" should be treated as a "means plus function" claim. The Court construes "backing element" to mean: "A sheetlike element overlying the rear surface of the chip." The element may be, but is not necessarily, flexible. *See TI Order* at 20.

II. Terms Not Previously Construed by This Court

A. "Semiconductor Assembly"

The parties dispute the meaning of the term "semiconductor assembly" which appears in the preamble of each of the asserted claims. Joint Claim Construction Statement at B1:1-2. "If the preamble adds no limitations to those in the body of the claim, the preamble is not itself a claim limitation and is irrelevant to proper construction of the claim." *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434 (Fed.Cir.2000). However, where a claim preamble limits the scope of the claim, it must be construed. *Pitney Bowes, Inc. v. Hewlett Packard Co.*, 182 F.3d 1298, 1305 (Fed.Cir.1999). The question is whether the preamble is "necessary to give life, meaning, and vitality" to the claim. *Id.*

In its papers, Tessera contends that it is unnecessary for the Court to construe the preamble, because it is merely descriptive of the combination of structural elements that follow. In its papers, Samsung asserts that each claim covers assembled semiconductor packages, and therefore the preamble limits the scope of the claim to the complete package.

At the November 12, 2002 hearing, both parties agreed that the ITC construction is appropriate. Thus, it is unnecessary for the Court to decide whether the preamble is a claim limitation as a matter of law. The Court construes "semiconductor assembly" to mean "a chip package that contains the elements recited in the claim."

B. "Terminal"

Tessera proposes that the term "terminal" should be interpreted to mean "an element adapted to make an electrical connection to a mating element." Joint Claim Construction Statement B1:7-8. Tessera relies on the specification which describes the connection from the chip to the contact to the lead to the terminal, and from the terminal to contact pads on the circuit board. '977 patent at 3:35-41; 8:41-47. Samsung, on the other hand, argues that "terminal" means "an externally accessible point of electrical connection." Joint Claim Construction Statement B1:7-8.

Tessera objects to Samsung's proposed construction as adding an impermissible limitation of external accessibility that is not imposed by the claims. However, Samsung asserts that external accessibility is what differentiates "contacts" from "terminals". Samsung also challenges Tessera's construction as unnecessarily complex. Samsung notes that the term "terminal," not construed in the *TI* Order, was construed in *Sharp* to mean "an end point for connection of the package to the outside." Cherensky Dec. Ex. P at 54. It is not clear from the *Sharp* construction whether the ITC meant "outside" to require external accessibility after assembly.

The construction promoted by Samsung is contrary to how "terminal" is used in the specification and claims. Nowhere do the claims or the specification limit "terminal" to an element that is externally accessible. The Court construes "terminal" to mean "an end point for electrical connection of the package to the outside." It is not necessary that a terminal be externally accessible when the chip package is fully assembled.

C. "So as to Compensate for Thermal Expansion of Said Chip" and "To Compensate for Differential Thermal Expansion of the Chip and Substrate"

Tessera proposes that the meaning of both "so as to compensate" terms is "to appreciably relieve the thermally induced stresses (strains) caused by the difference in thermal expansion of the chip and the substrate." Samsung proposes that the "so as to compensate" term should mean "to neutralize or counterbalance thermal expansion." Joint Claim Construction Statement at B3:1-2. Samsung contends that its proposed construction should prevail because the ordinary meaning of "compensate" is to "neutralize or counterbalance." Joint Claim Construction Statement at B3:1-2; B5:2. However, the specifications of the '304 patent do not require "so as to compensate" to go so far as complete neutralization or counterbalancing. Tessera's proposed construction of appreciable relief is supported by the specification, which refers to the terminals "accommodating" thermal expansion. *See* '304 patent at 15:57; 20:47.

The Court construes the meaning of both "so as to compensate" terms to be "to appreciably accommodate the thermally induced stresses (strains) caused by the difference in thermal expansion of the chip and the substrate."

D. Juxtaposed

Tessera's proposed construction of "juxtaposed" is "placed close together or side by side." Samsung's proposal is "placed side by side." Joint Claim Construction Statement at B6:1. Samsung contends that each time the term "juxtaposed" is used in the specification, it refers to elements that are "side by side." This is incorrect. Samsung's proposed construction is unnecessarily restrictive and would exclude configurations in which some other layer is placed between the two chips or between the backing element and the first chip. Tessera's construction is consistent with the preferred embodiment of the multi-chip package, shown on Fig. 29 of the '893 patent. There are various layers interposed between the chips. '893 patent at 33:16-37. Samsung's construction would exclude this package from the claims. The Court construes "juxtaposed" to mean "placed close together or side by side."

E. Encapsulant

Both Tessera and Samsung's experts agree that "encapsulant" is a term of art in the electronic packaging field. *Qu* Dec. para. 70; *Prince* Dec. para. 21. Tessera's proposed meaning of "encapsulant" is "a material

used to seal up or cover an element or circuit for mechanical and environmental protection." Samsung's proposed meaning is "a material that is used to surround and encase by being in physical contact with." Joint Claim Construction Statement at B2:3-4. However, the '326 patent teaches that the encapsulant may merely cover, as opposed to surround, a single side of the element. '326 patent at 30:2-5. Similarly, Samsung has not referred to any place in the patent claims or specifications where physical contact between the element and the encapsulant is required. Accordingly, the Court construes "encapsulant" to mean "a material used to seal up or cover an element or circuit for mechanical and environmental protection."

F. Compliant

Tessera proposes that "compliant" means "ready, disposed, or likely to yield." Samsung advances that "compliant" means "a material with low elastic modulus that easily yields to an applied force." Joint Claim Construction Statement at B1:13-15. The essential difference between the parties' proposed constructions is that Samsung's construction includes "low modulus" material. Tessera's does not. The specification of the '977 patent describes one embodiment of a compliant material as having a low Young's modulus. '977 patent at 17:40-42. Young's modulus is a measure of elasticity. However, the specification describes another embodiment as a material with holes. *Id.* at 4:2-5; 4:31-36. Thus, the claim term "compliant" does not require a particular elasticity. The Court construes "compliant" to mean "yielding to an applied force."

G. Elastomeric Material

Tessera defines "elastomeric material" as "a material that behaves like an elastomer, such as synthetic rubber or plastic, which can be stretched or deformed under stress, and after release of the stress, will return to its approximate original shape." Samsung's definition is "a rubber-like material that can be stretched or deformed under low stress at least two times its original length and, after the release of the stress, will return with force to its approximate original shape." Joint Claim Construction Statement at B1:15-16. The essential dispute between the parties is that Tessera insists on a reference to "synthetic rubber or plastic" and "Samsung" insists on "rubberlike." Samsung contends that its construction is more helpful to a jury because reference to synthetic materials is misleading and confusing. Samsung relies upon the *McGraw-Hill Dictionary of Scientific and Technical Terms* (4th ed.) for its proposals that the elastomer must be stretched to "at least two times its original length" and return to its original shape "with force." However, there is no basis in the claims or specifications for such limitations. The Court construes "elastomeric material" as "a material that behaves like an elastomer, such as synthetic rubber, which can be stretched or deformed under stress, and after release of the stress, will return to its approximate original shape."

H. Low Modulus Material

Tessera argues that "low modulus material" means "a material with a relatively low elastic modulus (also known as Young's Modulus and/or shear modulus), which is a material property that is defined as the amount of stress needed to produce a given amount of strain." Samsung originally proposed "low modulus material" to mean "a material with a low elastic modulus (also known as Young's Modulus), which is a material property defined as the amount of stress needed to produce a given amount of strain (deformation)." Joint Claim Construction Statement at B3:2-3. Samsung changed its position to eliminate reference to Young's modulus in its proposed construction, now proposing that the term means "a material with low elastic modulus, which is a material property defined as the amount of stress needed to produce a given amount of strain (deformation.)" As such, Tessera and Samsung agree that measures of both normal and shear forces are proper.

The remaining difference between the parties is whether low modulus is a relative or absolute measure. The specification repeatedly refers to low modulus as an absolute, not relative value. '977 patent at 4:28-36, 17:40-49, 17:66-18:7, 18:43-47, 19:2-3, 24:25-26, 27:27-31, 27:67-28:3, 30:10-12. Nothing in the specification requires or suggests that modulus value is a relative measurement. Thus, the Court construes "low modulus material" to mean "a material with low elastic modulus, which is a material property defined as the amount of stress needed to produce a given amount of strain (deformation)."

CONCLUSION

For the foregoing reasons, the Court CONSTRUES the disputed terms and phrases in the foregoing manner.

IT IS SO ORDERED.

N.D.Cal.,2004.

Samsung Electronics Co., Ltd. v. Tessera Technologies, Inc.

Produced by Sans Paper, LLC.