United States District Court,
N.D. California.

WISTRON CORPORATION, a Taiwan corporation,
Plaintiff and Counter-Defendant.
v.
SAMSUNG ELECTRONICS CO., LTD., a Republic of Korea corporation,
Defendant and Counter-Plaintiff.

No. C07-4748 VRW

Nov. 25, 2008.

Michael J. Bettinger, Harold H. Davis, Jr., Christy Vanessa La Pierre, Timothy Paar Walker, Holly Anne Hogan, Jas S. Dhillon, K&L Gates LLP, San Francisco, CA, for Plaintiffs and Counter-Defendants.

Mark Fowler, Brian Patrick Wikner, Erik Fuehrer, Elizabeth M. Day, Nickolas J. Bohl, Sal Lim, Timothy Lohse, DLA Piper U.S. LLP, Gregory James Lundell, DLA Piper Rudnick Gray Cary U.S. LLP, East Palo Alto, CA, Basil Peter Fthenakis, Law Offices of Basil P. Fthenakis, Palo Alto, CA, for Defendants.

ORDER

VAUGHN R. WALKER**, Chief Judge.**

This suit focuses on: (1) United States Patent No 5,333,273 (" '273 Patent") which describes protected "hot-key" functions entered through a keyboard input for industry-standard architecture (ISA) computers; (2) United States Patent No 5,635,275 (" '275 Patent") which describes a power supply that is able to provide different levels of charging current to a battery in a portable computer system based on whether the battery is fully charged; and (3) United States Patent No 6,523,100 (" '100 Patent") which describes a memory control unit (MCU) that is able to work with memory modules of different types or varying speeds. This order addresses the claim construction of all three patents.

I

On September 14, 2007, Wistron Corp ("Wistron") filed a complaint against Samsung Electronics Co, Ltd ("Samsung") for declaratory judgment that the Travelmate 2410 Notebook Personal Computer ("Travelmate PC") manufactured by Wistron does not infringe the three patents in suit. Doc # 1. The complaint also seeks a declaratory judgment that the patents in suit are invalid. Doc # 1. On September 17, 2007, Samsung filed an answer to the complaint and a counter complaint against Wistron for patent infringement. Doc # 6. After filing a joint claim construction statement (Doc # 101), the parties filed claim construction briefs, seeking to have the court construe a number of disputed claim terms from the '273 Patent, the '100 Patent and the ' 275 Patent. This order addresses those disputed terms.

II

Claim construction is an issue of law, and it begins "with the words of the claim." Nystrom v. TREX Co., Inc., 424 F.3d 1136, 1142 (Fed.Cir.2005), citing Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996); see also Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed.Cir.1998) ("The appropriate starting point * * * is always with the language of the asserted claim itself."). Claim terms are "generally given their ordinary and customary meaning" unless the patent specification or file history contains a clearly stated "special definition." *Vitronics Corp,* 156 F.3d at 1582. Moreover, "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed.Cir.2005). Such a person is deemed to have consulted not just the claim term at issue, but the "entire patent, including the specification." *Id*. The Federal Circuit described the "person of ordinary skill" inquiry as follows:

It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention-the inventor's lexicography-must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decisionmaking process by reviewing the same resources as would that person, viz, the patent specification and the prosecution history.

Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1477 (Fed.Cir.1998). See also Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed.Cir.2005) ("We cannot look at the ordinary meaning of the term * * * in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.").

Relatedly, courts should not rely on extrinsic evidence in claim construction to contradict the meaning of claims discernable from examination of the claims, the written description and the prosecution history. Vitronics, 90 F.3d at 1583. Nevertheless, it is appropriate "for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite and widely held understandings in the pertinent technical field." Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1309 (Fed.Cir.1999). Extrinsic evidence "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." Phillips, 415 F.3d at 1317. All extrinsic evidence should be evaluated in light of the intrinsic evidence. Id at 1319.

With these principles in mind, the court now turns to the construction of the disputed claim language of the patent.

III

The '273 Patent has been the subject of considerable litigation both in this court and in the Southern District of Texas before Magistrate Judge Johnson and Judge Rainey. On May 12, 2005, this court issued a claim construction order concerning '273 Patent in *Samsung Electronics Co, Ltd v. Quanta Computer Inc et al,* Civil Action No C-00-4524 VRW (the "Quanta Order), also reproduced at Doc # 58-4, Exh B. Upon motion for reconsideration by Quanta, the court issued a second claim construction order on July 25, 2006 (the "Second Quanta Order). Doc # 58-5, Exh C. Between the patent itself, the parties' memoranda and the

aforementioned previous court orders, the invention has been described in detail numerous times. See Doc # 58-3, Exh B at 3-4. Accordingly, this order need not provide yet another summary.

Several '273 Patent claim terms are in dispute and the parties have stipulated to constructions of several other claim terms. See Doc # 101-5, Exh D. The court accepts the parties' stipulated constructions for purposes of this action. The terms in dispute are "data scan code/scan code," "first interrupt signal," "second interrupt signal," "second interrupt signal line," "indexes/indexing," "indexes a first memory location pointer," "indexing a second memory location," "indexing one of plurality of memory locations," "program," "special routine," "combination," and "non-conventional function key/additional function key." The disputed claims-underscored the first time they appear-are presented below.

1. A system for providing a built-in function in an ISA-compatible computer in response to activation of a selected combination of user activated keys, comprising:

a keyboard having a set of conventional alphanumeric and function keys and further having at least one *additional function key;*

a keyboard controller connected to said keyboard to monitor said conventional keys and said additional function key to detect when at least one of said keys is activated, said keyboard controller having first and *second interrupt signal lines* connected to said ISA-compatible computer, said keyboard controller responsive to an activation of at least one of said conventional keys to activate a *first interrupt signal* to said ISA-compatible computer on said first interrupt signal line, said keyboard controller responsive to an activation of said additional function key in *combination* with at least one of said conventional alphanumeric keys to generate a *second interrupt signal* to said ISA-compatible computer on said second interrupt signal line;

a first conventional interrupt handling routine within said ISA-compatible computer responsive to said first interrupt signal from said keyboard controller to input *data scan codes* from said keyboard; and

a second non-conventional interrupt handling routine within said ISA-compatible computer responsive to said second interrupt signal from said keyboard controller to input an identification of said activated alphanumeric key and to perform a predetermined function selected by said identified alphanumeric key.

* * *

4. The system for providing a built-in function as defined in claim 1, further comprising a central processing unit that *indexes a first memory location pointer* in response to said first interrupt signal, said central processing unit further *indexing a second memory location pointer* in response to said second interrupt signal.

5. A system for servicing keyboard interrupts in an ISA-compatible computer, comprising:

a keyboard having a plurality of keys including conventional alphanumeric keys, conventional symbol keys, conventional function keys and conventional cursor control keys, said keyboard further including at least one *non-conventional function key,* said keyboard generating a *scan code* in response to an activation of at least one of said keys, said scan code varying depending upon which of said keys is activated; and

a keyboard controller coupled to said keyboard, said keyboard controller further coupled to said ISA-compatible computer by first and second interrupt signal lines, said keyboard controller generating a first interrupt signal on said first interrupt signal line upon receipt of a scan code corresponding to one of said conventional keys, said ISA-compatible computer programmed to execute a *program* to input said scan code in response to said first interrupt signal, said keyboard controller generating a second interrupt signal on said second interrupt signal line upon receipt of a scan code corresponding to said non-conventional function key, said ISAcompatible computer programmed to execute at least one *special routine* upon receipt of said second interrupt signal.

* * *

7. The system for servicing keyboard interrupts as defined in claim 6, further comprising a Central Processing Unit coupled to said interrupt controller, said Central Processing Unit *indexing one of a plurality of memory locations,* said memory location depending upon said interrupt vector.

Doc # 101, Exh A, '273 Patent at 13:36-14:60.

"Data scan code/scan code"

The term "data scan codes" appears in independent claim 1. The term "scan code" appears in independent claim 5. Doc # 101, Exh A, '273 Patent at 13:61, 14:29. The parties agree the terms should share the same construction, but the parties proposed constructions differ. Samsung proposes that this court adopt a construction identical to the court's prior construction of the same claim terms in the Quanta Order. Doc # 56 at 7. In the Quanta Order, this court held the terms "data scan code" and "scan code" to mean "a code number that the keyboard generates whenever a key is depressed or released, said code number created by converting a pairing of a row signal and a column signal in the keyboard matrix." Doc 58-3, Exh B at 12-17. Wistron's proposed construction is identical, except that Wistron proposes the addition of the sentence "each key on the keyboard has a unique scan code" at the end of the construction. Doc # 82 at 6.

Wistron argues that its proposed additional clarification "each key on the keyboard has a unique scan code" should be included because it is the second sentence from the definition of "scan code" found in the *Microsoft Press Computer Dictionary*. Doc # 82 at 6. Wistron points to additional evidence suggesting that each key has a unique scan code. Doc # 82 at 6-8. Wistron also explains that the claims here require that the claimed architecture must be in an "ISA compatible" system and that such a system requires that each key on the keyboard have a unique scan code. Doc # 82 at 7.

The court adopts Samsung's construction. Wistron's arguments that each key on the keyboard must have a unique scan code do not explain why such a statement is needed to understand the claim terms "data scan code" and "scan code." If it is true, as Wistron suggests, that the only way a computer can distinguish a particular key is if each key has a unique scan code, then the additional language "each key on the keyboard has a unique scan code" would be superfluous. Moreover, if the claims require that the claimed architecture be in an "ISA compatible" system, and such a system in turn requires that each keyboard key have a unique scan code, then it would be unnecessary to read that limitation into the construction of the term "scan code" itself. Accordingly, the court construes "data scan code" and "scan code," consistent with its prior construction, as "a code number that the keyboard generates whenever a key is depressed or released, said code number created by converting a pairing of a row signal and a column signal in the keyboard matrix."

"***First interrupt signal***"

The term "first interrupt signal" appears in claims 1, 4 and 5. Doc # 101, Exh A, '273 Patent at 13:47, 13:50-52, 13:60, 14:19, 14:35-42. Samsung's proposed construction is "IRQ1." Doc # 56 at 9. Wistron proposes a construction of "the ISA standard IRQ1 interrupt signal." Doc # 82 at 8.

The court dealt with a similar question in the Quanta Order when construing the term "second interrupt signal." See Doc # 58-3, Exh B at 21-23. In that order-regarding construction of the same patent-the parties stipulated that "first interrupt signal" meant "IRQ1," but disputed whether the "second interrupt signal" could be *any* other interrupt signal or whether it was limited to one of the ISA-standard interrupt signals. The court held that the term "second interrupt signal" did not limit the interrupt signal to the ISA-standard. *Id* at 22. The court explained:

the court sees no basis in the literal claim language to limit "second interrupt signal" to ISA-standard interrupts. If anything, the choice of "interrupt"-a generic, but well-understood engineering term * * * rather than "IRQ" or "ISAstandard interrupt" evinces the patentee's choice to eschew such a limitation in favor of a more expansive claim. Indeed, although IRQs are referenced throughout the specification, the claims themselves eschew any reference to IRQs.

Id. The same argument applies to the term "first interrupt signal." While there may be other language in the claims requiring that the invention function in an ISA-compatible computer, the term "first interrupt signal" does not impose that limitation. Accordingly, the court will not impose a limitation that is nowhere evident in the broad claim term itself. Because there is no suggestion by either party that "first interrupt signal" should be construed to have a meaning that is broader than "IRQ1 interrupt signal," the court adopts the construction "IRQ1 interrupt signal." This is consistent with Samsung's proposed construction, but specifies that the first interrupt signal is indeed an "interrupt signal," based on the discussion that follows.

"***Second interrupt signal***"

The term "second interrupt signal" appears in claims 1, 4 and 5. Doc # 101, Exh A, '273 Patent at 13:55-56, 14:3, 14:42-49. Samsung's proposed construction-"any interrupt other than IRQ1"-is identical to the court's prior construction. Doc # 56 at 9 (Samsung's construction); Doc 58-3, Exh B at 20-22 (the court's prior construction). Wistron proposes the construction: "any interrupt signal other than IRQ1 interrupt signal." Doc # 82 at 9.

Wistron's proposed construction only differs from Samsung's proposed construction in that Wistron emphasizes that the "second interrupt signal" is indeed a *signal*. Wistron explains the need to depart from the court's prior construction of the same term in the same patent by arguing that using the bare word "interrupt" may confuse the jury with the computer process called an "interrupt ." See Doc # 82 at 9. Samsung expert Dr Wedig agrees, of course, that an "interrupt signal" is a "signal," but disputes the Wistron contention that specifying as such in the claim construction reduces confusion. Doc # 84-5, Exh 4 at 15. If only to be more precise, the court adopts Samsung's proposed construction and construes "second interrupt signal" to mean "any interrupt signal other than IRQ1 interrupt signal."

"***Second interrupt signal line***"

The term "second interrupt signal line" appears in claims 1 and 5. Doc # 101, Exh A, '273 Patent at 13:57, 14:35-36, 14:43-44. Samsung proposes that "second interrupt signal line" be construed as "a second,

separate signal line from the keyboard controller connected to the ISA-compatible computer for transmitting the second interrupt signal." Doc # 56 at 10. Wistron proposes the same language except that it proposes the court insert the term "dedicated" before "separate signal line" in order to specify that the second interrupt signal line be dedicated only to the second interrupt signal. Doc # 82 at 9.

The court finds no reason to impose Wistron's proposed limitation by reading into the claim term "second interrupt signal line" a restriction that the term does not command. Wistron cites to portions of the specification and prosecution history that describe using separate signal lines for IRQ1 interrupt signals and a second interrupt signal, respectively, in order to avoid the interference found in the prior art. Doc # 82 at 10-12. But this "separate" nature of the signal lines is embodied by the agreed upon claim construction language "a second, separate signal line," which defines the second interrupt signal line as being a signal line other than the IRQ1 signal line. This language does not further restrict the second, separate signal line to be dedicated only to the second interrupt signal. Moreover, even if such restriction existed elsewhere in the patent outside the patent claims, that would not warrant reading the restriction into the meaning of "second interrupt signal line." Accordingly, the court adopts Samsung's proposed construction of "second interrupt signal line."

"indexes a first memory location pointer"; "indexing a second memory location pointer"; "indexing one of plurality of memory locations"

The claim terms in dispute incorporating the word "indexes" or "indexing" appear in dependent claims 4 and 7. See Doc # 101, Exh A, '273 Patent at 14:18-21, 14:58-59. The dispute here is over the term "index" and is similar to the dispute about the terms "first interrupt signal" and "second interrupt signal," in that it centers on the degree of specificity required by the claim term in dispute. Samsung proposes that the court construe "indexes" broadly as "selects or accesses." Doc # 56 at 14. Wistron proposes that the court construe "indexes" as a particular way of selecting or accessing a memory location: "adding an offset amount" to a base memory location. Doc # 82 at 12.

Wistron justifies its more narrow construction with a dictionary definition and a quotation from the specification. The court is not persuaded. As the court noted in the Quanta order, "[i]f the patentee had meant to limit the claim to particular methods of indexing, such a limitation would appear in the literal terms of the claim language." Doc # 58-3, Exh B at 25. This is consistent with Federal Circuit precedent that explains, "claims must be read in view of the specification, but limitations from the specification are not to be read into the claims." Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313, 1325-26 (Fed.Cir.2002). Accordingly, because the only dispute here is about the level of specificity and Wistron's more narrow construction is not justified by the terms of the claims, the court adopts Samsung's proposed constructions, with a few grammatical corrections, which are consistent with its constructions in the Quanta order. "Indexes a first memory location pointer" shall be construed as "selects or accesses an identifier that corresponds to the start of the first conventional interrupt handling routine." "Indexing a second memory location pointer" shall be construed as "selecting or accessing an identifier that corresponds to the start of the second non-conventional interrupt handling routine." "Indexing one of plurality of memory locations" shall be construed as "utilizing an interrupt vector to access a memory location corresponding to an interrupt vector."

"Program"

The claim term "program" appears in claim 5. See Doc # 101, Exh A, ' 273 Patent at 14:40. Claim 5 recites that the keyboard controller receives a scan code and then generates a first interrupt signal. *Id* at 14:36-39.

Claim 5 then recites "said ISA-compatible computer programmed to execute a program to input said scan code in response to said first interrupt signal." *Id* at 14:39-42. Samsung proposes that the term "program" be construed as "a handling routine that causes the computer to receive keyboard scan codes from the keyboard controller." Doc # 56 at 12. Wistron's proposed construction is "to perform a series of instructions to input the scan code."

The court is unpersuaded that either construction need be adopted. Samsung's construction identifies the term "program" as a "handling routine." Samsung justifies this construction with language from the specification that refers to the function at issue here and states, "[a]s part of the *keyboard interrupt service routine,* the microprocessor 110 is caused to enable the keyboard controller 128 * * * to communicate the keyboard scan codes from the keyboard controller to the microprocessor 110." Doc # 101, Exh A, '273 Patent at 5:21-25 (emphasis added). Samsung provides no evidence to explain why a "keyboard interrupt service routine" is the same as a "handling routine" or why the claim itself would not have used this language had it desired to limit itself that way.

Wistron's proposed construction "to perform a series of instructions to input the scan code" is unnecessary. The sentence in which the term "program" appears explains that the "program" will "input said scan code." Accordingly, it is redundant to input that purpose into the definition of "program" as well. Moreover, the term "program" has an ordinary meaning that need not be constructed arbitrarily to understand the claim language and so the court will not do so here.

"***Special routine***"

The term "special routine" appears in claim 5. See Doc # 101, Exh A, '273 Patent at 14:47. The claim recites that the keyboard controller will generate a second interrupt signal upon receipt of a scan code corresponding to the non-conventional function key. *Id* at 14:42-45. Claim 5 then recites that the computer will be "programmed to execute at least one special routine upon receipt of said second interrupt signal." *Id* at 14:45-47. Samsung proposes that "special routine" be construed as "a routine that is executed upon receipt of the second interrupt signal." Doc # 56 at 13. Wistron's proposed construction is "a routine that is only executed upon receipt of the second interrupt signal and the scan code corresponding to one of the conventional keys." Doc # 82 at 15.

The court, here too, is unconvinced that any construction need be adopted. Both proposed constructions attempt to define the "special routine" by the circumstance that triggers its activation. Under Samsung's proposed construction, the trigger is the "receipt of the second interrupt signal." Under Wistron's proposed construction, the trigger is the "receipt of the second interrupt signal and the scan code corresponding to one of the conventional keys" and there is the additional limitation that this is the "only" trigger. But the claim language speaks for itself concerning the circumstance that triggers the special routine. The claim states that the computer will be "programmed to execute at least one special routine *upon receipt of said second interrupt signal*." Doc # 101, Exh A, '273 Patent at 14:47-48 (emphasis added). The court sees no reason to deviate from the claim language itself that is clear on this point. Construing "special routine" will add no further clarity.

"***Combination***"

The claim term "combination" appears in claim 1. See Doc # 101, Exh A, '273 Patent at 13:37, 13:53. The claim states that the keyboard controller and the computer respectively will be "responsive" to "activation of a selected combination of user activated keys" and to "activation of said additional function key in

combination with at least one of said conventional alphanumeric keys." *Id*. Samsung argues that the term "combination" does not require construction. Wistron proposes that the term be construed as "simultaneously."

Wistron argues that the term "combination" without further construction is too broad because it could refer to any sequence of multiple key strokes that includes the additional function key. Doc # 82 at 16. This might include a "combination" in which the Fn key is depressed and then released and then an alphanumeric key is pressed and then released.

Samsung expert Dr Wedig contends that depressing the Fn key and then releasing it and then depressing an alphanumeric key and then releasing it does not fall under the ordinary meaning of the claim language "combination." Doc # 84-5, Exh 4 at 23. Moreover, Samsung argues that Wistron's construction-"simultaneous"-would require that the Fn key and an alphanumeric key be *depressed* at the same time, which according to Samsung is "virtually impossible" and not contemplated by the '273 Patent. Doc # 56 at 11-12.

The court agrees with Wistron that the term "combination" without construction could be taken to mean the depressing one key, releasing it and then depressing another key. The court also agrees with Samsung that construing "combination" as simultaneously could be taken to mean that the user is required to activate both keys initially at the same time. Accordingly, the court adopts Wistron's construction of "combination," but construes "activation" to mean "state of activation" in order to clarify that the combination of an additional function key and a conventional key must be in the "state of activation" "simultaneously" in order to generate a second interrupt signal. This construction only applies to the appearance of those terms at column 13:53-54 because elsewhere the terms do not need further construction.

"Non-conventional function key"

The term "non-conventional function key" appears in claim 5. See Doc # 101, Exh A, '273 Patent at 14:28, 14:45. "Additional function key" appears in claim 1. See Doc # 101, Exh A, '273 Patent at 13:42-45, 13:53-54. The parties agree these terms should share the same construction, but their respective proposed constructions differ. Samsung proposes that no construction is needed for these terms. Doc # 56 at 11. Wistron proposes that both terms be construed as "an additional function key other than a conventional function key." Doc # 82 at 17.

In the Quanta order, the court held that "no construction is needed at all" for these claim terms." Doc 58-3 at 11-12. Wistron provides no justification for its proposed construction other than an unsubstantiated "possibility of confusion." The court agrees with Samsung and the court's own previous Quanta order that the terms require no clarifying construction.

IV

As the '275 Patent describes, in most portable computer systems, "the power supply supplies two levels of battery charging current: one level when the computer system is off and a second when the computer system is on." Doc # 101, Exh B, '275 Patent at 1:20-23. To ensure that a power supply is able to supply sufficient current for both powering the computer system and charging the battery, the power supply's alternating current (AC) adapter has to be built for the situation when it is required to power the computer system while it charges the battery. As a result, AC adapters are often larger than necessary and power available from the AC adapter that is not needed is wasted. *Id* at 1:23-35.

The '275 Patent describes a power supply that adjusts the current used for charging the battery of a portable computer system depending on how much current is being drawn by the computer system. The power supply includes an AC adapter which provides input current for operating the computer system and for charging the battery. Id at 1:54-2:4. The patent describes three sensors that measure: (1) input current supplied by the AC adapter; (2) charging current supplied to the battery; and (3) output voltage of the power supply. Id at 2:5-11. A controller is connected to each sensor that monitors each of these parameters. Id at 2:11-13. When any of these sensors detects a value that exceeds a set maximum limit, the controller stops the power supply charging the battery. Id at 2:13-19. If none of the input signals indicate that their predetermined maximums are reached, the AC adapter charges the battery. Id at 2:45-54. When the computer system draws less current, the battery-charging current increases, ensuring that all the power output from the AC adapter is efficiently used. Id at 1:62-64.

The '275 Patent also describes a method of regulating the amount of charging current supplied to a rechargeable battery by a regulator in a portable computer system. Id at 3:25-38.

There are three claim terms in dispute: "block"; "variable"; and "first inactive state." These terms are found in claim 1 and 7 of the '275 Patent. See Doc # 101, Exh B, '275 Patent. The relevant portions of each claim are presented below with disputed language underscored the first time it appears.

1. A power supply for recharging a battery in a portable computer system from a conventional AC adapter, said power supply comprising:

* * *

a charging current control circuit connected to receive said control signal from said controller, said control circuit further being connected between said AC adapter and said battery to control charging current flow between said AC adapter and said battery based upon said control signal generated by said controller, said controller generating said control signal to cause said control circuit to *block* charging current flow when at least one of said input current level, said charging current level and said output voltage level exceeds its respective maximum limit, said controller generating said control signal to cause said control circuit to provide charging current at a *variable* level when all of said input current level, said charging current level and said output voltage level are less than said respective maximum limits, said variable charging current level controlled to cause said input current level to be maintained approximately at said first maximum limit as long as second maximum limit and said third maximum limit are not exceeded.

7. A regulator for controlling charging current flow between a conventional AC adapter and a battery in a portable computer system, wherein said AC adapter provides an input current which comprises a charging current provided to said battery and a system current provided to electronic components of said portable computer system, said regulator comprising:

a controller connected to said AC adapter, said battery, and an output of said regulator to monitor a first input signal indicative of a level of said input current supplied by said AC adapter, to monitor a second input signal indicative of a level of said charging current supplied to said battery, and to monitor a third input signal indicative of an output voltage of said regulator, wherein said controller generates a control signal responsive to said first, second and third input signals, said control signal having a *first inactive state* when any one of said first, second and third input signals exceeds a respective first, second and third limit

value, said control signal having a second *variable* active state when none of said first, second and third input levels exceed said respective first, second and third limit values; and

a charging current control circuit connected to said controller and to said battery and responsive to said control signal from said controller, wherein said charging current control circuit supplies said charging current from said AC adapter to charge said battery when said control signal from said controller has said variable active state, said controller varying said active state to cause said first input level to be maintained approximately at said first limit value regardless of changes of said system current provided to said electronics in said portable computer system as long as said second input signal and said third input signal are below said respective second limit value and third limit value.

Doc # 101, Exh B, '275 Patent at 9:21-40, 9:61-10:129.

"***Block***"

The term "block" appears once in claim 1 which requires that the "controller generating said control signal to cause said control circuit to block charging current flow when at least one of said input current level, said charging current level and said output voltage level exceeds its respective maximum limit * * *." Doc # 101, Exh B, '275 Patent at 9:27-31. Samsung argues that the construction of "block" should be "bias the transistor off," Doc # 56 at 17-19, whereas Wistron argues that the construction should be "stop the flow of charging current." Doc # 82 at 18.

Samsung points to language in other parts of the patent that use the phrase "the transistor is biased on and off" in discussing the "control [of] current flow." Doc # 56 at 17-19. The language "biased on" or "biased off" is used repeatedly in the patent, including in claims 5 and 8 as well as multiple times in the specification. See Doc # 101, Exh B, Patent '275 at 9:51-56, 10:30-35, 2:25-30, 2:50-54, 5:2-3, 7:14-17, 7:36-40, 8:8.

Samsung also points to extrinsic evidence including the testimony of Dr Robert Coldwell who states,

In my opinion, one of ordinary skill in the art would understand the use of a transistor as it is described in the specification of the '275 patent as the only practical way to implement the block limitation of claim 1. I see no other description in the '275 patent that suggests the inventors intended the block limitation to carry any meaning other than the transistor is biased off.

Doc # 57 at 8.

Wistron, on the other hand, points to language in the specification of the patent that describes how current flow stops whenever one of the three measured parameters exceeds its maximum. Doc # 82 at 18. The patent states, "[w]hen either of these control signals is above a predetermined threshold value, the regulator output is disabled so that no charging current is supplied to the battery." Doc # 101, Exh B, '275 Patent at 4:4-6. The patent further states, "if the current drawn by the computer system is above the threshold value, the regulator output is disabled and no charging current is directed to the battery 12." *Id* at 4:15-18. Wistron also argues that Samsung's construction limits the meaning of "block" based on how "blocking" is accomplished by Samsung's particular iteration of the invention. Doc # 82 at 18.

The word "block" is a commonly understood word and has an apparent meaning that can be applied. In the

context of the patent, biasing the transistor off is the mechanism by which charging current is blocked, but the word "block" is not synonymous with this mechanism. Because of this the specification and other claims of the patent go on to describe in detail the mechanism that causes the charging current to be blocked. The word "block" is used to describe what happens to the charging current flow, not how the regulation of charging current flow is accomplished. Thus, the court adopts Wistron's construction (with a minor edit) and construes "block" as "stop the flow of."

"***Variable***"

In this patent, the term "variable" appears in claims 1 and 7 in describing current-charging levels and active states. Claim 1 states, "said controller generating said control signal to cause said control circuit to provide charging current at a variable level when all of said input current level, said charging current level and said output voltage level are less than said respective maximum limits * * *." Doc # 101, Exh B, '275 Patent at 9:31-36. Claim 7 states, "said control signal having a second variable active state * * *." *Id* at 10:12-13. Samsung argues that the plain meaning of "variable" should be used, doc # 56 at 19-20, whereas Wistron argues that "variable" should be construed as "adaptable." Doc # 82 at 16-17.

Samsung argues that "variable" does not need construction because it is an easily understood term by persons of ordinary skill in the art and by laypersons. Doc # 56 at 19-20. Samsung also argues that the inventors chose to use the word "variable" in the claims just as they did in selecting the title of the patent: "Power Supply Which Provides a Variable Charging Current To A Battery In A Portable Computer System" and that the inventors' language choice should be honored. Id at 20, citing Signtech USA, Ltd. v. Vutek, Inc., 174 F.3d 1352, 1358 (Fed.Cir.1999). Samsung further argues that the word "adaptable" does not appear in the patent, while the words "variable" and other derivations of the word such as "vary" are used in the patent to describe the charging current level. Doc # 56 at 20. Samsung also cites Dr Colwell who states that the definition of variable of "not consistent or having a fixed pattern" from the Compact Oxford English Dictionary is the definition that would be understood by one of ordinary skill in the art. Doc # 57, Colwell Decl at 8-9.

Wistron argues that "variable" should be construed as "adaptable" to avoid confusion over variances in charging current not attributable to the changes proactively caused by the functioning of the power supply. Doc # 82 at 19-20. Wistron points out that the "variable" charging current does not refer to random fluctuations or things such as the computer being turned on or off. Instead, the invention varies the charging current to "adapt" to the needs of the computer system. *Id*.

In its reply brief, Samsung argues that the current level does not "adapt" but rather the power supply adapts to change the level of current set to the battery. Doc # 102 at 13.

Just like the word "block," "variable" is a commonly understood word and has an apparent meaning which can be applied. See Philips v. AWH Corp., 415 F.3d 1303, 1312 (Fed.Cir.2005) ("[T]he words of a claim 'are generally given their ordinary and customary meaning.' "). Thus, the court agrees with Samsung that "variable" does not need construction and that the plain meaning of the word should be applied. Since "variable" modifies the "current level" and the "current level" does not "adapt," the court also agrees with Samsung that it would improper to impose the meaning of "adapt" on the word "variable."

"***First inactive state***"

The term "first inactive state" only appears in claim 7 which states a "control signal having a first inactive

state when any one of said first, second and third input signals exceeds a respective first, second and third limit value." Doc # 101, Exh B, '275 Patent at 10:10-12. Samsung and Wistron agree that the "first inactive state" is the condition reached when the charging current is "blocked." Both offer the same arguments for their respective constructions of "first inactive state" as they offer for their respective constructions of "block."

Samsung argues that "first inactive state" should be construed as "the state in which the transistor is biased off," doc # 56 at 20-21, whereas Wistron argues that "first inactive state" should be construed as "the signal state that represents no charging current is flowing." Doc # 82 at 20. Wistron also argues that Samsung's proposed construction is too narrow because biasing a transistor off is only one way to stop the flow of current. Doc # 82 at 20.

Unlike "block" and "variable," "first inactive state" is not a commonly understood word and does not have an apparent meaning which can be applied. The court must look at intrinsic evidence such as the context in which the term appears in the patent, the other claims of the patent and the specification of the patent. See Philips, 415 F.3d at 1314-17.

Claim 8 states,

The regulator of claim 7, wherein said charging current control circuit includes a transistor connected between said AC adapter and to said battery, wherein said transistor is biased on and off in accordance with said output signal generated by said controller to control current flow between said AC adapter and said battery.

Doc # 101, Exh B, '275 Patent at 10:30-35. According to claim 8, the transistor is biased on and off in accordance with the output signal of the controller, otherwise referred to as the control signal. When the control signal is in its "first inactive state" the transistor is biased off. The mechanism of biasing the transistor on or off is used to "control current flow." Claim 8 describes controlling current flow as the purpose of the control signal going from a "first inactive state" to an "active state," but the transistor being biased on or off is what determines the "state" of the control signal. The transistor being biased on or off is a full and accurate description of the "state" of the control signal.

Though the court does not agree with Samsung's construction of "block" because there is a commonly understood and apparent meaning which can be applied, the court agrees with Samsung's construction of "first inactive state." The state of the transistor is directly correlated with and is used in the text of the patent to describe the state of the "control signal" and whether it is the "first inactive state." Accordingly, the term "first inactive state" shall be construed as "the state in which the transistor is biased off."

V

As the '100 Patent describes, an information processing system may have one or more memory modules that provide storage of data and instructions for one or more central processing units (CPUs). Doc # 101, Exh B, '100 Patent at 1:19-27. In some systems, memory modules are connected through a memory bus to a memory control unit (MCU) which is then connected with the CPU through a system bus. *Id* at 1:28-32. Memory modules typically include integrated circuit devices such as dynamic random access memory chips (DRAM). *Id* at 1:28-32. DRAM devices are available in a number of operating configurations and conventional memory modules are generally precluded from operating with different types of DRAM. *Id* at

2:1-27.

The '100 Patent describes a memory system comprising of a memory unit connected to a MCU capable of working with memory modules of different types and varying speeds. Id at 2:37-3:10. Each memory module provides to the MCU an indication of its access speed and type and the MCU then provides an appropriate access timing commensurate with that access speed. Id at 11:46-53. The patent also describes a computer system comprising a CPU and the described memory system. Id at 12:15-52.

There are six claim terms in dispute with regard to the '100 Patent: "memory controller unit"; "configured to receive"; "to provide"; "indication of access speed"; "access timing"; and "commensurate (with)." The claims of the ' 100 Patent-with disputed language underscored-are:

1. A memory system, comprising:

at least one memory module; and

a *memory controller unit configured to receive* an indication of access speed of said at least one memory module, and *to provide,* during access of said at least one memory module, an appropriate *access timing commensurate with* said received *indication of access speed*.

2. The memory system according to claim 1, wherein:

said at least one memory module comprises a plurality of memory modules, said memory controller unit being further configured to select a selected one of said plurality of memory modules, to receive said indication of access speed of said selected one of said plurality of memory modules, and to provide, during access of said selected one of said plurality of memory modules, an appropriate access timing commensurate with said received indication of access speed.

3. The memory system according to claim 1, wherein:

said memory controller unit is further configured to receive an indication of memory type of said at least one memory module.

4. A computer system comprising:

a CPU operatively coupled to a system bus; and

a memory controller unit configured to receive a memory access request from said CPU via said system bus, said memory controller unit being operatively coupled to one or [sic] more memory modules via a memory bus, said memory controller unit being configured to receive an indication of access speed of said at least one memory module, and to provide, during access of said at least one memory module in response to said memory access request, an appropriate access timing commensurate with said received indication of access speed.

5. The computer system according to claim 4, wherein:

said at least one memory module comprises a plurality of memory modules, said memory controller unit

being further configured to select a selected one of said plurality of memory modules, to receive said indication of access speed of said selected one of said plurality of memory modules, and to provide, during access of said selected one of said plurality of memory modules in response to said memory access request, an appropriate access timing commensurate with said received indication of access speed.

6. The computer system according to claim 4, wherein:

said memory controller unit is further configured to receive an indication of memory type of said at least one memory module.

7. The memory system according to claim 1, wherein:

said memory controller unit is configured to receive an indication of access speed of said at least one memory module during an initialization of said memory system.

8. The computer system according to claim 4, wherein:

said memory controller unit to receive an indication of access speed of said at least one memory module from said CPU during an initialization of said memory system.

Doc # 101, Exh C, '100 Patent at 11:45-12:51.

"***Memory controller***"

The term "memory controller unit" appears in each claim of the patent. The "memory controller unit" is described throughout the claims as "configured to receive an indication of access speed." Doc # 101, Exh C, '100 Patent at 11:48-49, 12:21-23.

Samsung argues that "memory controller unit" should be construed as "chip circuitry, other than a memory access requestor, that provides the access timing." Doc # 56 at 22-23. Samsung argues that the intrinsic evidence indicates that the MCU is distinct from the "memory access requestor." *Id*. Moreover, Samsung argues that there is no limitation in the specification of the patent or in the claim language that an indication of access speed occur "on each access." *Id* at 23. Finally, Samsung argues that Wistron's construction provides no meaning to the claim term once the "on each access" limitation is removed. *Id* at 23.

Wistron proposes that "memory controller unit" be construed as "a controller that receives an indication of access speed on each access." Doc # 82 at 21. Wistron argues that its construction is supported by the specification's preferred embodiment, which describes each memory unit sending an indication of access speed to the controller on each access. Doc # 82 at 21. Wistron also argues that the claim construction must include the "on each access" limitation because, according to expert testimony, the novel aspect of the system described by the '100 Patent is the "during each access" aspect. Doc # 83 at 18-19. Finally, Wistron opposes Samsung's argument that the "memory control unit" is not the "memory access requestor" on the grounds that it is not supported by the claim language and that the prosecution history shows that the claims were amended to exclude both a CPU and memory access requestor from the "memory controller unit." Doc # 84, Exh 13.

In its reply brief, Samsung argues that the terms of the '100 Patent should be interpreted in light of its

"parent," United States Patent No 6,021,477 ('477 Patent), which includes an "on each access" ("specifying a duration of the memory access on an access-by-access basis") limitation, while the '100 Patent does not. Doc # 102 at 133-14; Doc # 103-2, '477 Patent at 12:2-3. Samsung cites Kao Corp. v. Unilever United States, Inc., 441 F.3d 963, 973 n5 (Fed Cir2006), in arguing that changes in particular claim language should be recognized. Doc # 102 at 14. Samsung also argues that limiting the claims to one particular embodiment of the invention would be improper "where there is nothing in the claims or the specifications to compel such a result." Doc # 102 at 14. Samsung also points to expert testimony to contradict the expert testimony of Clark who stated that the novel aspect of the system is that an indication of access speed is provided on each access. Doc # 59 at 23-24.

The court agrees with Wistron's construction of "memory control unit" as "a controller that receives an indication of access speed on each access." The MCU is described as "configured to receive an indication of access speed of said at least one memory module." This clause does not contain any limitation that the "indication of access speed" is provided on each access. But the subsequent clause states that the MCU is "to provide, during access of said at least one memory module in response to said memory access request, an appropriate access timing." This clause contains the limitation that the MCU is to provide "appropriate access timing" "during access." The intrinsic evidence found in the claim language demonstrates that the MCU "receives an indication of access of speed on each access." Accordingly, the MCU is characterized by the receiving of an indication of access speed "on each access."

"Configured to receive"

The term "configured to receive" appears in claims 1, 3, 4, 6 and 7. Doc # 101, Exh C, '100 Patent at 11:45-12:51. The MCU is "configured to receive an indication of access speed" from the memory modules of "an appropriate access timing commensurate with said received indication of access speed." Doc # 101, Exh C, '100 Patent at 11:45-12:51.

Samsung argues that the term does not need construction and that the plain meaning of the term, "designed to receive," should be applied. Doc # 56 at 23-24. Samsung cites to two dictionary definitions to support its contention that "configure" means "design." See *American Heritage Dictionary of the English Language* (3d ed 1992) (defining "configure" as "to design, arrange, set up, or shape with a view to specific applications or uses"); *Random House Dictionary of the English Language* (2d ed 1987) (defining "configure" as "to design or adapt to form a specific configuration or for some specific purpose").

Wistron argues that the term should be construed as "set up to receive during each access." Wistron offers the same arguments for imposing an "on each access" limitation on the construction of "memory control unit" for "designed to receive." Doc # 82 at 22.

The court agrees with Samsung that the ordinary meaning of the term "configured to receive" is "designed to receive." The term does not need further construction because there is a commonly understood and apparent meaning which can be applied. See Philips v. AWH Corp., 415 F.3d 1303, 1312-1314 (Fed.Cir.2005). The meaning of both "configured" and "receive" are easily understood by those with ordinary skill in the art and even by lay persons and judges. The "on each access" limitation is not applied to this claim term.

"To provide"

The term "to provide" appears in claims 1, 2, 4 and 5. Doc # 101, Exh C, ' 100 Patent at 11:45-12:51.

Samsung argues that the term does not need construction because the words "to provide" are simple words easily understood by persons of ordinary skill in the art. Doc # 56 at 24.

Wistron argues that the term should be construed as "supply during each access." Doc # 82 at 22. Wistron points to the declaration from Clark which states that one of ordinary skill would understand "to provide" to mean "supply during each access" because "the memory controller unit is also configured 'to provide, during access' an appropriate access timing." Doc # 83 at 20. The claim language states, "a memory controller unit configured to receive an indication of access speed of said at least on memory module, and to provide, during access of said at least one memory module * * *." Doc # 101, Exh C, ' 100 Patent at 11:48-51.

The court agrees with Samsung that the term "to provide" does not need construction because there is a commonly understood and apparent meaning which can be applied. As in *Philips,* the ordinary meaning of "to provide" is readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words. Philips v. AWH Corp., 415 F.3d 1303, 1312-1314 (Fed.Cir.2005). No construction is necessary. The "on each access" limitation is not applied to this claim term.

"***Indication of access speed***"

The term "indication of access speed" appears in claims 1, 2, 4, 5, 7 and 8. Doc # 101, Exh C, '100 Patent at 11:45-12:51.

Samsung argues that the term should be construed as the "data that identifies the read/write speed of the memory module." Doc # 56 at 24. Samsung expert Dr Wedig explains that the claims do not require that the "indication" take a particular form and that one of ordinary skill in the art would understand "indication" to be any type of data that provides the access speed to the MCU. Doc # 59 at 32. Dr Wedig goes on to state that "access speed" is understood by those of ordinary skill in the art to be the rate at which a memory item can be read from or written to the memory module. Doc # 59 at 32. Samsung points out that this is consistent with the specification in the patent. Doc # 56, Doc # 101, Exh C, '100 Patent at 8:22-31.

Wistron counters that the term should be construed as the "state of a signal line connecting between a memory unit (MU) and the memory control unit (MCU) that represents memory clock rate information." Doc # 82 at 22. The chief difference between this construction and Samsung's construction, according to Wistron expert Dr Clark, is that "Samsung's proposed definition is broadly characterized as 'data' relating to a memory's 'read/write speed' whereas Wistron's proposed construction accurately observes that an 'indication' is really a signal state that represents memory clock rate information, as delivered on the line connecting an MU to the MCU." Doc # 83 at 20. Wistron argues that the preferred embodiment found in the specification describes a signal line carrying a signal representing an indication of access speed that connects the memory unit to the memory controller. Doc # 82 at 22, citing Doc # 101, Exh C, '100 Patent at Fig 4 and 8:23-29. The language in the specification Wistron points to is:

The assertion of AHCMATCH* [which is an indication of access speed] being caused by the generation of MATCHED* and also a MU jumper or switch which indicates that DRAMs having a specified speed are installed. AHCMATCH* is a status signal to the MCU 14 which indicates that the MU is adding one half of a MEMCLK cycle to the memory access to accommodate the timing requirements of the DRAMs.

Doc # 101, Exh C, '100 Patent at Fig 4 and 8:23-29. Wistron argues that Samsung's construction changes

this "status signal" to a vague "data" which could be something other than what is described in the patent. Doc # 83 at 20-21. Wistron also argues that because the patentee was forced to disclaim the CPU as the "memory controller unit" to avoid prior art it would be contrary to the disclaimer to allow the MCU to receive the indication of access speed indirectly through the CPU. Doc # 83 at 21, citing Doc # 84-14, Exh 13 at 6.

The court agrees with Samsung that the term "indication of access speed" should be construed as "data that identifies the read/write speed of the memory module." The intrinsic evidence of the claim language demonstrates that the "indication of access speed" that a memory module provides to the MCU is information that the MCU can use to read and write to the memory module. There is nothing in the claim language that limits this "indication" to be a "signal" as Wistron argues. Wistron tries to use the language of the specification to show that the "indication" provided to the MCU must be a signal, but while the court must look at the claims within the context of the specification, it is improper to limit claim language to the preferred embodiment absent a clear demonstrated intent to so limit the claim. Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 906 (Fed.Cir.1995) ("Even when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.").

"***Access timing***"

The term "access timing" appears in claims 1, 2, 4, 5, 7 and 8. Doc # 101, Exh C, '100 Patent at 11:45-12:51.

Samsung argues that the term should be construed as "timing of a signal used to control the read/write access of the memory module." Doc # 56 at 26. Wistron counters with the construction: "a period of time used to access memory. Access timing is different from access speed." Doc # 82 at 23.

Samsung notes that access timing is indeed different from access speed, as Wistron's construction indicates, but argues that Wistron's inclusion of the distinction is unnecessary because the claims separately recite the two limitations and thus make the distinction clear. Doc # 56 at 26. According to Samsung, the chief difference between the proposed constructions is whether "access timing" is the "timing of a signal" or a "period of time" used to access memory. Samsung argues that intrinsic evidence supports its contention that "access timing" should be construed as the timing of a *signal*. Doc # 56 at 26-27. Samsung first points to language in claims 1, 2, 4 and 5 that explains that the MCU "provide[s] * * * an appropriate access timing." Doc # 101, Exh C, '100 Patent at 11:50-51, 12:7-9, 23-35, 34-37. Samsung then points to Figure 4 of Doc # 101, Exh C, '100 Patent which shows seven illustrative *signals* between "MEMCLOCK* " and "RFRSH*," including the "RAS* " signal, which are provided by the MCU. Doc # 101, Exh C, '100 Patent at Fig 4. Samsung also cites the specification which states the "function of the various signals shown in FIG 4 are better understood by also referring to the timing diagrams of FIGS 5-12 which show a variety of memory access types." Doc # 101, Exh C, ' 100 Patent at 6:53-56.

Wistron argues that the term should be construed as "a period of time used to access memory" because dictionaries define "timing" as a "period of time" or "length of time." Doc # 82 at 23-24, citing, among other dictionaries, *Encyclopedia of Computer Science* (1993) at 5 ("access time" is "the elapsed time between the initiation of a request for data and receipt for the first bit of byte of that data,"); *Webster's New World Dictionary of Computer Terms* (1983) at 2 ("access time" is "the length of time required to store or retrieve data between main memory and an external storage device,"). Wistron also contends that Samsung's expert admits that "timing" could be defined in terms of periods of time. Doc 82 at 24.

The court agrees with Samsung that the term "access timing" should be construed as "timing of a signal used to control the read/write access of the memory module." While Wistron points to dictionary definitions of "timing" and "access time," within the context of the claim language such definitions do not make sense. The court, moreover, must first look to intrinsic evidence before looking at extrinsic evidence such as dictionary definitions. Vitronics Corp. v. Conceptronic, 90 F.3d 1576, 1583 (Fed.Cir.1996). The language of the specification, as Samsung argues, demonstrates that the term "timing" as it is used in the claims refers to "timing of a signal" and not to a "time period." Moreover, while both parties agree that "access timing" is different from "access speed," Wistron does not point to any evidence that suggests that the distinction is not obvious without an extra sentence in the construction of "access timing."

"Commensurate with"

The term "commensurate with" appears in claims 1, 2, 4 and 5. Doc # 101, Exh C, '100 Patent at 11:45-12:51. The MCU provides "an appropriate access timing commensurate with said received indication of access speed." Doc # 101, Exh C, '100 Patent at 11:50-53, 12:25-27.

Samsung argues that the term should be construed as "to accommodate the timing requirements of the memory module." Doc # 56 at 27. Wistron offers the construction "corresponding in size." Doc # 82 at 24.

Samsung argues that both intrinsic evidence and ordinary meaning support its proffered construction. Samsung expert Dr Wedig argues that one of ordinary skill in the art understands that "an appropriate access timing commensurate with the received indication of access speed" means using access timing that will operate correctly with the declared speed of the memory module. Doc # 59 at 36. Samsung points to language in the specification that is a near verbatim match with its proposed construction: "AHCMATCH* is a status signal to the MCU 14 which indicates that the MU is adding one half of a MEMCLK cycle to the memory access to accommodate the timing requirements of the DRAMs." Doc # 56 at 28, citing Doc # 101, Exh C, '100 Patent at 8:26-31. Samsung also points to the abstract which uses the language a "memory access cycle compatible with the indicated access speed." Doc # 56 at 28. Samsung goes on to explain that Wistron's construction, "corresponding in size," is overly narrow because it attempts to impose a one-to-one correspondence between the access timing and the access speed. *Id*. Samsung contends that such a restriction is unwarranted because the claims impose no such restriction and the specification provides that the access timing need only "accommodate" or "be compatible with" the access speed. Finally, in Samsung's reply brief, Samsung argues that Wistron's construction's incorporation of the word "size" is improper because such language is not used in the patent and it is unclear to what the word "size" refers. Doc # 102 at 18.

Wistron counters that Samsung's construction is too broad. Wistron points to deposition testimony from Samsung's expert allegedly admitting that Samsung's proposed construction would be met if the memory controller applied a single, slow access timing to all of the memory modules. Doc # 82 at 24, citing Doc 84-5, Exh 4 at 26. Wistron contends that a construction that allows for this result cannot be accurate because it is contrary to the goal of the invention, which is to adapt the access timing to the memory unit's access speed. Doc # 82 at 24, citing Doc 84-5, Exh 4 at 26. Wistron also argues that its construction is consistent with the ordinary meaning of "commensurate" based on a dictionary defining "commensurate" as "corresponding in size or degree." Doc # 82 at 24-25, citing *American Heritage Dictionary of the English Language* (4th ed 2000).

The court agrees with Wistron that the ordinary meaning of "commensurate" is narrower than "to accommodate." While there is other language in the patent that uses broader terms than "commensurate," such as "accommodate" and "compatible," the claim language uses the term "commensurate," which has the ordinary meaning of "corresponding" in some way, be it size or speed or degree.

Although the court adopts Wistron's term "corresponding," it agrees with Samsung that "corresponding *in size*" is nonsensical in the context of the claim language here because it suggests that there is a physical relationship that is not present here. The court sees no need to specify the manner in which the "corresponding" relationship exists where the patent does not do so. Accordingly, the court construes "commensurate with" as its ordinary meaning "corresponding to."

IT IS SO ORDERED.

N.D.Cal.,2008.
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