UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

NETLIST, INC. Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC. and SAMSUNG SEMICONDUCTOR, INC., Defendants.	Civil Case No. 2:21-cv-00463-JRG **JURY TRIAL DEMANDED**

DEFENDANTS' OBJECTIONS TO
CLAIM CONSTRUCTION MEMORANDUM ORDER

TABLE OF CONTENTS

I. DISPUTED CLAIM TERMS 1

A. The ’918 & ’054 Patents 1

B. The ’506 Patent 4

C. The ’339 Patent 4

Pursuant to Fed. R. Civ. P. 72(a) and Local Rule CV-72, and for purposes of preserving issues for appeal, Defendants submit the following objections to Magistrate Judge Payne's Claim Construction Memorandum Opinion and Order (Dkt. No. 114) (the "Order").

I. DISPUTED CLAIM TERMS

A. The '918 & '054 Patents

"dual buck converter" / "dual-buck converter"	
Defendants' Proposed Construction	**Order**
"buck converter with two outputs outputting two distinct regulated voltages"	"a buck converter with two regulated voltage outputs"

The Order erred in finding "dual buck converter" / "dual-buck converter" to not require "distinct" regulated voltage outputs. For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's construction. Dkt. 82 at 2-4. The claims recite distinct buck converters operating as a "dual buck converter" to output distinct regulated voltages, which is the required function of the dual buck converter defined in the specification. The only discussion of "dual buck converter" in the specification describes it as outputting two voltages with different voltage levels. '918 patent at 29:46-50; *see also id.* at Figure 16 (depicting voltage 1104 going to "Isol Dev" (isolation device) and voltage 1105 going to "FPGA").

"pre-regulated input voltage" / "input voltage"	
Defendants' Proposed Construction	**Order**
"regulated voltage generated on the memory module from an input voltage"	Plain and ordinary meaning.

The Order erred in rejecting Samsung's construction of "pre-regulated input voltage" / "input voltage" in favor of plain and ordinary meaning. For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's proposed construction. Dkt. 82 at 4-6. Because the '918 patent claims require both "a pre-regulated input voltage" and "an input voltage," they are presumed to have different meanings. The '918 patent claims make clear the

"pre-regulation" occurs on the memory module itself. As such, this term should be construed consistent with the only disclosure of "pre-regulated" voltages in the specification, as "regulated voltage generated on the memory module from an input voltage."

"first" / "second" / "third" / "fourth" "regulated voltages"	
Defendants' Proposed Construction	**Order**
"first regulated voltage that is distinct from the second, third, and fourth regulated voltages" / "second regulated voltage that is distinct from the first, third, and fourth regulated voltages" / "third regulated voltage that is distinct from the first, second, and fourth regulated voltages" / "fourth regulated voltage that is distinct from the first, second, and third regulated voltages"	Plain and ordinary meaning.
"first" / "second" / "third" / "fourth" "voltage amplitude"	
Defendants' Proposed Construction	**Order**
"first voltage amplitude that is distinct from the second, third, and fourth voltage amplitudes" / "second voltage amplitude that is distinct from the first, third, and fourth voltage amplitudes" / "third voltage amplitude that is distinct from the first, second, and fourth voltage amplitude" / "fourth voltage amplitude that is distinct from the first, second, and third voltage amplitude"	Plain and ordinary meaning.

The Order erred in rejecting Samsung's construction of these terms in favor of plain and ordinary meaning. For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's proposed construction. Dkt. 82 at 6-10. The enumerated "first," "second," "third," and "fourth" "regulated voltages" and "voltage amplitudes" should be construed as distinct elements that cannot be identical. *See Alexsam, Inc. v. Cigna Corp.*, No. 2:20-cv-00081-JRG-RSP, 2021 WL 1561606, at *30 (E.D. Tex. Apr. 20, 2021) (construing "first database" and "second database" as databases distinct from each other and noting "any dispute regarding 'distinct' relates to factual issues of infringement").

"at least three regulated voltages"	
Defendants' Proposed Construction	**Order**
"at least three distinct regulated voltages"	Plain and ordinary meaning.
"plurality of regulated voltages"	
Defendants' Proposed Construction	**Order**
"plurality of regulated voltages"	Plain and ordinary meaning.

The Order erred in rejecting Samsung's construction of "at least three regulated voltages" / "plurality of regulated voltages" in favor of plain and ordinary meaning. For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's construction. Dkt. 82 at 10-11. The claims and specification make clear that "at least three regulated voltages" and "plurality of regulated voltages" recited by the asserted independent claims of the '054 patent require that the "regulated voltages" be distinct from one another.

"a second plurality of address and control signals"	
Defendants' Proposed Construction	**Order**
"a second plurality of address and control signals that are distinct from a first plurality of address and control signals"	Plain and ordinary meaning.

The Order erred in rejecting Samsung's construction of "a second plurality of address and control signals" in favor of plain and ordinary meaning. For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's construction. Dkt. 82 at 11-12. The claims and specification show that "a second plurality of address and control signals" are distinct from "a first plurality of address and control signals" consistent with the "common patent-law convention" of using "'first' and 'second' . . . to distinguish between repeated instances of an element" frequently endorsed by this Court. *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003).

"A memory module"	
Defendants' Proposed Construction	**Order**
Preamble is non-limiting	Preamble is limiting

The Order erred in finding the preamble limiting. For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's construction. Dkt. 82 at 12-13. Each of the claims at issue recite a structurally complete invention, and as a result, the preambles are non-limiting statements of intended purpose. *See Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (internal citations, quotations omitted).

B. The '506 Patent

"before receiving the input C/A signals corresponding to the memory read operation"	
Defendants' Proposed Construction	**Order**
"during one or more previous memory operations"	The step of "determining the first predetermined amount based at least on signals received by the first data buffer" occurs before the earlier recited step of "receiving . . . input C/A signals."

The Order erred in finding the "before receiving" limitation to mean "[t]he step of 'determining the first predetermined amount based at least on signals received by the first data buffer' occurs before the earlier re-cited step of 'receiving . . . input C/A signals.'" For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's construction. Dkt. 82 at 18-20. The intrinsic evidence shows that "before" occurs "during one or more previous memory operations."

C. The '339 Patent

"drive" claim terms	
Defendants' Proposed Construction to Exemplary Claim 1	**Order**
"each respective byte-wise buffer further includes logic configurable to, in response to the module control signals, **activate** the byte-wise data path connected to a first DDR DRAM device (in a first N-bit-wide rank), and **disable** the byte-wise data path connected to a second DDR DRAM device (in a second N-bit-wide rank), to cause a respective byte-wise section of the N-bit wide write data associated with the memory operation to be **sent** from the first side to the first DDR DRAM device **along the activated** byte-wise data path and **not sent** to the second DDR DRAM device **along the disabled** byte-wise data path during the first time period in accordance with a latency parameter."	to "drive" means "enabling only one of the data paths while the other possible paths are disabled"

The Order adopts the following explanation for the drive terms:

> Based on this intrinsic record, the Court adopts the so-called fork-in-the-road approach. A skilled artisan would understand "driving" data from one side of the buffer to the other means, when there are multiple paths in a buffer through which that data can be driven, enabling only one of the data paths while the other possible paths are disabled. Thus, "to drive" as used in these claims means "enabling only one of the data paths while the other possible paths

are disabled."

Order at 10. Samsung agrees with this construction—the claims and specification require the patent to implement the fork-in-the road approach. But the ultimate construction ("enabling only one of the data paths while the other possible paths are disabled") omits part of the construction the Order articulated. For clarity and to ensure that the parties follow the Court's holding, Samsung, for the reasons stated in Samsung's claim construction brief and the Order, requests that the Court adopt Samsung's constructions[1] including the full paragraph at the end of page 10 of the Order and repeated above. Dkt. 82 at 20-26, Order at 7-10.

"module controller" claim terms	
Defendants' Proposed Construction to Exemplary Claim 1	**Order**
"a control circuit configurable to receive from the memory controller via the address and control signal lines input address and control signals for a memory write operation … and corresponding to a number of ranks of memory devices lower than the physical number of ranks of memory devices on the module, and in response to receiving the input address and control signals, to output registered address and control signals corresponding to the number of physical ranks of memory devices on the module…"	Plain and ordinary meaning.

The Order erred in rejecting Samsung's construction of "module controller" in favor of plain and ordinary meaning. For the reasons stated in Samsung's claim construction brief, Samsung requests the Court adopt Samsung's construction.[2] Dkt. 82 at 26-29. The independent claims each include a "module controller" where the input signals correspond to a number of ranks of memory devices smaller than the actual (physical) number of ranks, which Netlist has described as rank multiplication. The only element corresponding to the claimed "module controller" in the specification is the "control circuit 430," and the only examples of control circuits require what Netlist describes as rank multiplication. '339 patent at 17:66-18:5, 10:50-53.

[1] *See* Dkt. 91-1 at 8-13 for Samsung's constructions to the "drive" terms.
[2] *See* Dkt. 91-1 at 14-18 for Samsung's constructions to the "module controller" terms.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was filed electronically in compliance with Local Rule CV-5 on December 29, 2022. As of this date, all counsel of record have consented to electronic service and are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5(a)(3)(A).

/s/ Francis J. Albert