

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

SONRAI MEMORY LIMITED,
Plaintiff

-v-

**KIOXIA CORPORATION, KIOXIA
AMERICA, INC.**
Defendants

W-21-CV-00400-ADA

SONRAI MEMORY LIMITED,
Plaintiff

-v-

DELL TECHNOLOGIES, INC.,
Defendant

W-21-CV-00361-ADA

SONRAI MEMORY LIMITED,
Plaintiff

-v-

APPLE INC.,
Defendant

W-21-CV-00401-ADA

SONRAI MEMORY LIMITED,
Plaintiff

-v-

GOOGLE LLC,
Defendant

W-21-CV-00167-ADA

SONRAI MEMORY LIMITED,
Plaintiff

-v-

**LG ELECTRONICS INC., LG
ELECTRONICS U.S.A., INC.**
Defendants

W-21-CV-00168-ADA

SONRAI MEMORY LIMITED,
Plaintiff

-v-

**SAMSUNG ELECTRONICS CO.,
LTD., SAMSUNG ELECTRONICS
AMERICA, INC.**
Defendants

W-21-CV-00169-ADA

SONRAI MEMORY LIMITED,
Plaintiff

-v-

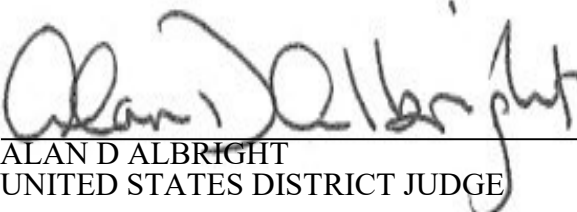
**WESTERN DIGITAL
TECHNOLOGIES, INC.,**
Defendant

W-21-CV-01168-ADA

CLAIM CONSTRUCTION ORDER

The Court held a *Markman* hearing on February 25, 2022. During that hearing, the Court provided its final constructions. The Court now enters those claim constructions.

SIGNED this 25th day of February, 2022.


ALAN D ALBRIGHT
UNITED STATES DISTRICT JUDGE

Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction	Court's Preliminary Construction
#1: "A charge pump circuit for generating a charge pump voltage having minimal voltage ripples" U.S. Patent No. 6,724,241, Cl. 1 Proposed by Defendants	The preamble is limiting, but only with regard to "charge pump circuit" and not "for generating a charge pump voltage having minimal voltage ripples"	The preamble is limiting and should be given its plain and ordinary meaning.	The preamble is not limiting except for "charge pump circuit"
#2: "load" U.S. Patent No. 6,724,241, Cl. 1 Proposed by Defendants	Plain and ordinary meaning	"a device that absorbs surplus charge to significantly reduce voltage ripple compared to a case without the device"	Plain-and-ordinary meaning

Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction	Court's Preliminary Construction
#3: "a load selector means for selectively coupling a load associated with a specific pump voltage to the output of said pumping circuit" U.S. Patent No. 6,724,241, Cl. 1 Proposed by Defendants	Plain and ordinary meaning; not subject to § 112 ¶ 6. Alternatively, should § 112 ¶ 6 apply: Function: selectively coupling a load associated with a specific pump voltage to the output of said pumping circuit Corresponding structure: Switches 320, 324, 328 and associated signals EN_A, EN_B, EN_C, as shown in figures 3, 5A, 5B, and switches 720, 724, 728 and associated signals EN_A, EN_B, EN_C, as shown in Figure 7, as well as associated descriptions of each in the specification.	This is a means-plus-function limitation. Function: "selectively coupling a load associated with a specific pump voltage to the output of said pumping circuit," which means "choosing a load based on the target pump voltage, such that the load is coupled to the output of the pumping circuit when the target pump voltage is selected" Corresponding structure: the three switches 320, 324, and 328 together with their respective control signals EN_A, EN_B, and EN_C and the controller that generates the signals	Not subject to § 112, ¶ 6. Plain-and-ordinary meaning.

Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction	Court's Preliminary Construction
#4: "target output selector means" U.S. Patent No. 6,724,241, Cl. 3 Proposed by Defendants	"load selector means"	Indefinite, or alternatively, means-plus-function limitation. If means-plus-function: Function: "adding a load, whenever a maximum ripple on the target output voltage (V_{cfrb}) greater than the reference voltage (V_{ref}) then the maximum ripple on the target output selector means adds additional loads until the V_{cfrb} voltage is less than or equal to the reference voltage (V_{ref})" Corresponding structure: second comparator 714, logic circuit 712, resistor 708, resistor 710, and set load switch 716	Not indefinite as "load selector means" provides antecedent basis.
#5: "portable memory apparatus" U.S Patent No. 6,920,527, Cls. 1, 15 Proposed by Defendants	Plain and ordinary meaning	"an external data storage device for carrying data from one computer system to another computer system"	Claim 1: Preamble is limiting. Claims 1 and 15: Plain-and-ordinary meaning

Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction	Court's Preliminary Construction
#6: “wherein, when said connector couples said portable memory apparatus to said computer system, said memory controller chip copies data from said non-volatile memory to said volatile memory, and said computer system accesses said data in said volatile memory through said connector” U.S Patent No. 6,920,527, Cl. 1 Proposed by Defendants	Plain and ordinary meaning	Indefinite	Not indefinite. Plain-and-ordinary meaning.
#7: “when said connector couples said portable memory apparatus to said computer system, said memory controller chip copies data from said non-volatile memory to said volatile memory” U.S Patent No. 6,920,527, Cl. 1 Proposed by Defendants	Plain and ordinary meaning	“at the time the portable memory apparatus is connected to the computer system, said memory controller chip copies data from said non-volatile memory to said volatile memory”	Plain-and-ordinary meaning

Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction	Court's Preliminary Construction
#8: "data" U.S Patent No. 6,920,527, All claims Proposed by Defendants	Plain and ordinary meaning	"user data"	Plain-and-ordinary meaning
#9: "wherein said memory controller chip transfers said non-volatile memory with data written to said volatile memory from said computer system while said portable memory apparatus is coupled to said computer system" U.S Patent No. 6,920,527, Cl. 6 Proposed by Defendants	Plain and ordinary meaning	Indefinite	Not indefinite. Plain-and-ordinary meaning

Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction	Court's Preliminary Construction
#10: "A method for regenerating a clock signal in a synchronous semiconductor memory, such method comprises the following steps" U.S. Patent No. 7,436,232, Cl. 14 Proposed by Plaintiff	The preamble is limiting	The preamble is not limiting except for "clock signal"	The preamble is not limiting except for "clock signal"
#11: "detecting a rise edge from a low logical level and a fall edge from a high logical level of said clock signal" U.S. Patent No. 7,436,232, Cl. 14) Proposed by Defendants	Plain and ordinary meaning	"detecting the clock signal passing above a low threshold level set for the low logical level of the clock, and the clock signal passing below a high threshold voltage level set for the high logical level of the clock"	Plain-and-ordinary meaning