Case 6:20-cv-00194-ADA Document 1-5 Filed 03/17/20 Page 1 of 165

EXHIBIT 5



Case 6:20-cv-00194-ADA Document 1-5 Filed 03/17/20 Page 2 of 165

U.S. Patent No. 9,858,218 SK hynix HMA84GL7AMR4N-UHTE



Case 6:20-cv-00194-ADA Document 1-5 Filed 03/17/20 Page 3 of 165

U.S. Patent No. 9,858,218: Claim 1

"1. A memory module operable with a memory controller of a host system, comprising:"

1. A memory module operable with a memory controller of a host system, comprising:

The SK hynix Products are memory modules operable with a memory controller of a host sys

For example, the SK hynix Products are DDR4 load reduced dual in-line memory modules ("



(Exemplary Photo of SK Hynix HMA84GL7AMR4N-UHTE).



288pin DDR4 SDRAM Load Red

DDR4 SDRAM Load Reduced D Based on 4Gb A-die

HMA42GL7AFR4N HMA84GL7AMR4N

SKH HMA42GL7AFR4N / HMA84GL7AMR4N Datasheet, at 1.



Case 6:20-cv-00194-ADA Document 1-5 Filed 03/17/20 Page 4 of 165

U.S. Patent No. 9,858,218: Claim 1

"1. A memory module operable with a memory controller of a host system, comprising:"



Description

SK hynix Load Reduced DDR4 SDRAM DIMMs are low power, high-speed operation mem use DDR4 SDRAM devices. These Load Reduced DIMMs are intended for use as main minstalled in systems such as servers and workstations.

Features

- 288 pin Load Reduced DDR4 DRAM Dual In-Line Memory Modules
- Buffer performance by LRDIMM presenting less load to system

SKH HMA42GL7AFR4N / HMA84GL7AMR4N Datasheet at 3 (annotation added).

JEDE

4.20.27 - 288-Pin, 1.2 V (VDD), PC4-1600/PC4-1866/PC4-2133/PC4-2400 PC4-2666/PC4-3200 DDR4 SDRAM Load Reduced DIMM Design

DDR4 SDRAM Load Reduced DIMM Design Speci

Revision 1.00

August 2015

JEDEC LRDIMM Specification at 1.



Case 6:20-cv-00194-ADA Document 1-5 Filed 03/17/20 Page 5 of 165

U.S. Patent No. 9,858,218: Claim 1

"1. A memory module operable with a memory controller of a host system, comprising:"

JED

1 Product Description

This specification defines the electrical and mechanical requirements for 288-pin, 1.2 Volt Reduced, Double Data Rate, Synchronous DRAM Dual In-Line Memory Modules (DDR4 SI These DDR4 Load Reduced DIMMs (LRDIMMs) are intended for use as main memory who

JEDEC LRDIMM Specification at 5 (annotation added).

The SK hynix HMA84GL7AMR4N-UHTE is manufactured according to JEDEC specification



See SKH DDR4 Module Label Info at 3.

(6)	Module Type	U : 288pin Unbuffered DIMM R : 288pin Registered DIMM S : 260 pin Unbuffered SO-DIMM
		L : 288pin LRDIMM N : 288pin NVDIMM
(7)	Gerber Revision	JEDEC Reference design file used for t
(8)	SPD Revision	JEDEC SPD Revision Encoding and Add

See SKH DDR4 Module Label Info at 3.



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

