IN THE UNITED STATES DISTRICT COURT FOR THE MIDDLE DISTRICT OF FLORIDA

Xiaohua Huang Pro Se,

Plaintiff,

Civil Action No.:

TRIAL BY JURY DEMANDED

v.

Trifecta Networks LLC

Defendant.

COMPLAINT FOR INFRINGEMENT OF PATENT

Plaintiff, Xiaohua Huang ("Plaintiff" or "Huang"), hereby files its Complaint for Patent Infringement against Defendant, THAT'S Trifecta Networks LLC ("Trifecta Networks" or "Defendant") and respectfully alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement under the Patent Laws of the United States, 35 U.S.C. §101, et seq., to prevent and enjoin Defendant Trifecta Networks (hereinafter "Trifecta Networks" or "Defendant") from infringing and profiting, in an illegal and unauthorized manner and without authorization and/or consent from Plaintiff, from U.S. Patent No. RE45259 (the 'RE259patent" or the "Patent"), which are attached hereto as Exhibit A and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages and costs.

THE PARTIES

2. Xiaohua Huang is an individual, his current residential address is at Los Gatos, CA95030. Huang has developed the state of the art high speed and low power U.S. patented TCAM designs to build IC chips used inside of Internet IP Routers("Routers"), Wireless routers, Ethernet Switches("Switches") and Data Center Switches etc. since the year of 2000.

3. Trifecta Networks is or purports to be a Florida company having its office address in

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4027 Tampa Rd, Ste 3900, Oldsmar, Florida, 34677, United States with is website: https://www.trifectanetworks.com/ and telephone number: (866) 771-9785.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, 35 U.S.C. § 101, et seq. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a). Venue is proper in this District pursuant to 28 U.S.C. §§1391(b) - (c) and 1400(b) in that Defendant has its operation office to do business daily and regularly in this District.

BACKGROUND FACTUAL ALLEGATION

5. A true and correct copy of the 'RE259patent is attached hereto as Exhibit C and A. The 'RE259patent is valid and owned by Plaintiff Mr. Huang as the inventor.

6. In Nov. 2000 "Huang" found CMOS Micro Device Inc. "CMOS") to develop Ternary Content Addressable Memory (TCAM). "Huang" is the owner of "CMOS", "CMOS" is a California corporation and having its office in Campbell, California. TCAM are used to perform the search function in internet networking router, switches and Data Center Switches.
7. From November, 2000 to October, 2002, Huang finished the design of ternary content addressable memory (TCAM) with 0.18um and 90nm TSMC technology which are covered by the 'RE259 patent. The TCAM designed by Huang is tens to hundreds of times faster in speed and consume much less power than the same products in Market at that time.

8. From 2011 to 2018 Plaintiff reversed numerous TCAM chips of NetlogicMicrosystem and TCAM chips of Renesas Electronics. With the help of Cellixsoft Corporation and Wuxi Hengyu Micro Electronics Ltd. Plaintiff obtained the evidence that the TCAM chips of Netlogic Microsystems and TCAM chips of Renesas Electronics, Inc. used the content of US patent RE45259. The TCAM chips of Netlogic Microsystems and Renesas Electronics infringed the claim 29 of US patent RE45259. Most switches and Routers have used the TCAM chips of Netlogic Microsystems Inc. and Renesas.

In 2003 Plaintiff found that a company called Silicon Design Solution Inc.(SDS) selling
 TCAM design same as the TCAM designed by CMOS Micro Device Inc.. Recently Plaintiff

found that the some IC circuit and TCAM used in the Router and Switches read the claim 29 of 'RE259 patent.

10. The patented TCAM developed by Huang has been recognized by the industry. In 2003 Huang was an invited speaker to present his TCAM design at networking symposium at Boston organized by the Industry Authority Linley Group. In 2015 Huang was also a presenter of MEMCON 2015 in Santa Clara convention center to present his patented TCAM design.

THE INFRINGING PRODUCTS WHICH DEFENDNAT MAY HAVE SOLD

11. Based on the information obtained that the products sold by Defendant, including but not limited to Network Switches EX4200,WS-C3750 etc., contains the IC with the function schematic inFigure3 and Figure4 in the below..



Figure 3. CAM differential sensing circuit.



Figure 4. the IC circuit in CAM and other function

The circuit in the above two Figures read on the claim 29 of 'RE259patent.

claim	The TCAM circuit in Figure3 and Figure4 are
	used in accused instrument EX4200 and WS-
	C3750 etc.
Claim 29 of US patent	This claim 29 reads on the schematics of FIG.3
RE45259	and Figure 4
A content addressable	This is preamble
memory (CAM) system,	
comprising:	
(1)a circuit segment	(1) First we explain how the circuit in
configured to generate a	Figure 4 works: the circuit in Figure 4 is a
circuit segment output based	dynamic circuit, it has two phase, first phase is
on whether at least one of a	pre-charge phase: set all the input of N
plurality of circuit segment	transistor(input 2a,input2b input 2n) at low
inputs received by the circuit	voltage level GND (voltage3),all the N-
segment corresponds to a first	transistors are OFF and do not conduct
logic level,	current, then through Input1 enable(Switch

	on) the P-transistor, P-transistor is ON and
	conduct current and connect the output node to
	VDD (Voltage 1), and output node are pre-
	charged through P-transistor to VDD (voltage
	1), finished the first phase.
	Second phase is evaluate phase: after the
	output node is pre-charged to VDD, the P-
	transistor is OFF through Input 1, then all the
	input signals are connected to Input2a,
	Input2b Input 2n; if all the input signals
	input2a,input2b and input2n are in low voltage
	level GND(voltage3), all the N-transistor are
	OFF, then the output node keep the pre-
	charged voltage VDD (voltage1), if any one of
	Input 2a,Input 2b Input 2n are in high
	voltage level VDD(voltage1), then the
	corresponding N-transistor is ON and conduct
	current to connect output node to GND (voltage
	3), then the output node voltage will become
	GND (voltage 3). which is read by this claim.
(2) the circuit segment	(2) during the pre-charge phase, the output
configured to set a node to a	nodes in the of Figure 4 is set to high logical
second logic level in response	level VDD (voltage1) through Input1 to switch
to an input signal, and	P-transistor ON and connect output node to
	VDD through P-transistor and output node are
	pre-charged to voltage VDD(Voltage 1), which
	is read by the corresponding section of the
	claim.

(3) to subsequently change the	(3)In the evaluate phase the logic level of
node to a third logic level in	output nodes in Figure 4 will change after
response to the plurality of	being set to high logic level, whether change or
circuit segment inputs, the	not rely on the logic level of the input signals to
circuit segment output	the N transistors(Input2a,input2binput2n),
corresponding to said third	the logic level change of output node follow the
logic level.	arrival of the input signals to the N transistors
	signals to the N transistors (Input2a, input2b
	input2n) are in low logic level GND(voltage
	3) , then all the N-transistor are OFF and
	conduct no current, the output node stay at the
	logical level (voltage) which was pre-charged,
	otherwise if one or more input signals are in
	high logic level VDD (voltage 1), then the
	corresponding N transistor are ON and
	conduct current and the output node will
	become GND (voltage 3). which is read by the
	corresponding section of the claim.

The circuit in Figure 3 share the similar principle with the circuit in Figure 4, so the analysis is saved in the infringement contention.

Claim 29 of 'RE259patent reads on the CAM circuit used in the accused instruments EX4200 and WS-C3750etc.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. RE45259

12. Plaintiff refers to and incorporates herein the allegations of Paragraphs 1-11 above.

13. On November 25, 2014 U.S. Patent No. RE45259 (the"'RE259Patent") was duly and legally issued for a "Hit ahead hierarchical scalable priority encoding logic and circuits." A true and correct copy of the 'RE259patent is attached hereto as Exhibit A. Xiaohua Huang

as inventor is the owner of all rights, title, and interest in and to the 'RE259 patent.

14 On information and belief, Defendant has infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of the claims of the 'RE259 patent through buying /selling the Network Switches EX4200 and WS-C3750 etc., those devices containing "TCAM " related circuit which have infringed at least claim 29 of the 'RE259patent as analyzed in paragraph 11 under 35 U.S.C. § 271(a), (b) and(c).

15 . On information and belief, Defendant has induced its Customers to have infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent the claim 29 of the 'RE259 patent by transferring data through TCAM used in Networking Routers ,Switches and Servers of Internet and Data centers. Those "TCAM" have infringed at least claim 29 of the 'RE259 patent as analyzed in paragraph 11 under 35 U.S.C. § 271(a), (b) and (c).

16 . On information and belief, Defendant has made contributory infringement directly, indirectly, literally, on Doctrine of Equivalent to the claim 29 of 'RE259 patent by its customers adding its Switches, Routers and Servers to Internet System and transferring data through the TCAM for its basic ACL, QoS function which have infringed at least claim 29 of the RE259 patent as analyzed in paragraph 11 under 35 U.S.C. § 271(a), (b) and(c). The using of TCAM to achieve ACL, QoS function of routers and switches accused are completely not a staple article or commodity of commerce suitable for substantial non-infringing use.

17. Defendant 's acts of infringement, inducing infringement and contributory infringement have caused damage to Xiaohua Huang, and Xiaohua Huang is entitled to recover from Defendant for the damages sustained by Xiaohua Huang as a result of Defendant's wrongful acts in an amount subject to proof at trial. Defendant's infringement

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of Xiaohua Huang exclusive rights under the 'RE259 patent will continue to damage Xiaohua Huang, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court. Defendant's infringement entitle Xiaohua Huang to recover damages under 35 U.S.C. §284 and to attorneys' fees and costs incurred in prosecuting this action under35 U.S.C. § 285.

JURY DEMAND

18. Pursuant to Fed. R. Civ. P. 38(b), Plaintiff Xiaohua Huang requests a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, Xiaohua Huang prays for the following relief:

(a). A judgment in favor of Xiaohua Huang that Defendant has infringed and is infringing U.S. Patent No RE45259;

(b). A judgment that the 'RE259 patent is valid and enforceable;

(c). An order preliminarily and permanently enjoining Defendant and its subsidiaries, parents, officers, directors, agents, servants, employees, affiliates, attorneys and all others in active concert or participation with any of the foregoing, from further acts of infringement of the 'RE259;

(d). An accounting for damages resulting from Defendant's infringement of the 'RE259 patent under 35 U.S.C. § 284;

(e). An assessment of interest on damages;

(f). A judgment awarding damages to Xiaohua Huang for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecuting this action, with interest pursuant to 35 U.S.C. § 285 and as otherwise provided by law;

(g). Such other and further relief as this Court may deem just and equitable.

Dated: March22, 2021

Respectfully Submitted,

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Exhibit A US patent RE45259