	Page 1		Page 3
	NITED STATES PATENT AND TRADEMARK OFFICE EFORE THE PATENT TRIAL AND APPEAL BOARD	1 2 3	INDEX TO EXHIBITS EXHIBIT DESCRIPTION PAGE Exhibit 1009 Patent 5.976.083 7
	IN INTERNATIONAL, INC.;	4	Exhibit 1009 Patent 5,976,083 7 to Richardson, et al.
6 7 vs. 8 LOGAI 9 10 11 12 13	ARMIN USA, INC., Case No. IPR2018-00564 IPR2018-00565 Petitioners, U.S. Patent No. 6,059,576 NTREE, LP, Patent Owner. EPOSITION OF VIJAY K. MADISETTI, Ph.D. February 7, 2019 9:47 a.m. Building 13 2900 Chamblee Tucker Road Atlanta, Georgia 30341	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	(Original Exhibits A, B, 2001, 1001, 1004, 1006, 1007, 1008, and 1009 were attached to the original transcript.)
	Page 2		Page 4
3 EXAM 4 By M 5 6 7 EXHI 8 Exhib 9 10 Exhib 11 12 Exhib 13 14 Exhib 15 16 Exhib 17 Exhib 18 19 Exhib 20 21 Exhib	INDEX OF EXAMINATIONS NESS: VIJAY K. MADISETTI, Ph.D. MINATION Page s. Redmond 7 INDEX TO EXHIBITS BIT DESCRIPTION PAGE	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD GARMIN INTERNATIONAL, INC.; and GARMIN USA, INC., Case No. IPR2018-00564 IPR2018-00565 Petitioners, vs. U.S. Patent No. 6,059,576 LOGANTREE, LP, Patent Owner. DEPOSITION OF VIJAY K. MADISETTI, Ph.D., produced, sworn, and examined on Thursday, February 7, 2019, between the hours of 9:47 a.m. and 11:34 a.m. of that day, located a 2900 Chamblee Tucker Road, Building 13, Atlanta, Georgia 30041, before Thomas R. Brezina, CRR, RMR, CCR, in a certain case now pending in the United States Patent and Trademark Office Before the Patent Trial and Appeal Board, Garmin International, Inc.; and Garmin USA, Inc. versus LoganTree, LP.

1 (Pages 1 to 4)



	Page 5		Page 7
1	APPEARANCES OF COUNSEL	1	(Exhibits Numbers 2001, 1001, 1004,
2		2	1006, 1007, 1008, 1009, 2001, A, and B were
3 C	On behalf of the Petitioners:	3	marked for identification.)
4 (p	present via speakerphone)	4	Deposition of Vijay K. Madisetti, Ph.D.
5 N	MEGAN J. REDMOND, Esquire	5	February 7, 2019
6 E	Frise IP PA	6	VIJAY K. MADISETTI, Ph.D.,
7	7015 College Boulevard	7	having been produced and first duly sworn as a
8	Suite 700	8	witness, testified as follows:
9	Overland Park, Kansas 66211	9	EXAMINATION
10	Tel: (913) 777-5600	10	BY MS. REDMOND:
11	Fax: (913) 777-5601	11	Q Dr. Madisetti, I'd like to start by
12	megan.redmond@eriseip.com	12	having you state your name and address for the
13	meganineamena@enseip.com	13	record.
14		14	A Yes. Good morning. My name is Vijay
	On behalf of the Patent Owner:	15	K. Madisetti. My address is 56 Creekside Park Drive
	M. COLLIN QUIGLEY, Esquire	16	in Johns Creek, Georgia 30022.
	McCathern, PLLC	17	Q Great. And, Dr. Madisetti, you have
18	3710 Rawlins Street	18	been deposed before; correct?
19	Suite 1600	19	A Yes.
20		20	Q So you're generally familiar with the
21	Dallas, Texas 75219	21	rules of the deposition; is that correct?
22	Tel: (214) 741-2662	22	A Yes.
23	Fax: (214) 741-4717	23	Q Just a reminder, I will ask some good
	E-mail: Cquigley@mccathernlaw.com	24	
24 25		25	questions, and I may ask some poor questions today. Will you please ask me to clarify if my question is
	Page 6		Page 8
1 C	CHRISTOPHER M. BARKLEY, Esquire	1	unclear?
	CCathern, PLLC	2	A I will.
3	523 West Sixth Street	3	Q Great. And if you have answered my
4	Suite 830	4	question, it's safe to assume that you have
5		5	understood my question. Is that fair as well?
	Los Angeles, California 90014	6	A Yes, it is.
6 7	Tel: (213) 225-6150	7	
	Fax: (213) 225-6151	8	Q Great. And is there any medical reason
8	Cbarkley@McCathernlaw.com		that would prevent you from giving truthful
9		9	testimony here today?
	lso Present: (via telephone)	10	A No.
11	Mr. Sam Korte	11	Q Great. About how many times have you
12		12	served as an expert witness?
13		13	A Quite a few times. Probably around 25
	Court Reporter:	14	to 30, maybe more.
15	Thomas R. Brezina, CRR, RMR, CCR-B-2035	15	Q Maybe more. About how many times have
16		16	you been deposed, do you think? About the same
17		17	amount?
18		18	A Yes. Maybe a little more. Maybe 50 to
19		19	75 or a little more.
20		20	Q Great. I'd like to begin today by
21		21	talking about the Stewart reference, and it's, for
22		22	the record, in tab six of your deposition binder,
23		23	and for the record, that is Garmin Exhibit 1004. So
24		24	let me know when you have turned to the Stewart
25		25	reference.

2 (Pages 5 to 8)



Page 9	Page 11
1 A Yes. I'm at the Stewart reference,	1 Q No. I'm just asking – I'm just asking
2 Exhibit Number	2 for your general understanding of accelerometers.
3 Q Great.	3 A Outside the context of this IPR, I
4 A 6 (sic).	4 mean, and outside the context of the '576, I would
5 Q If you had – perfect. And if you will	5 say that this would generally be a good description
6 turn to exhibit – or, sorry, figure one of Exhibit	6 of an accelerometer.
7 1004, I would appreciate it.	7 Q And then from the accelerometer there.
8 (A cellular telephone rang.)	8 11, I see the diagram is an arrow pointing to an AD
9 THE WITNESS: One second. Was it	9 converter on figure one. Do you see that?
10 figure one?	10 A I can see a block 46 in figure one.
11 BY MS. REDMOND:	11 That is titled A-to-D converter.
12 Q Figure one, please, of Exhibit 1004,	12 Q Right. And what is a purpose here of
13 which is the Stewart reference.	13 the AD converter?
14 A Yes. I'm at figure one.	14 A As described in columns eight column
15 Q Trying to talk through this figure with	15 eight of the specification of the 972 patent, which
16 you this morning. I see we have a – do you see	16 is the Stewart patent, the A-to-D converter would
17 Number 11 in the upper left-hand corner?	would receive as a part of its input channels, the
18 A Yes. There is a Number 11 on the upper	18 outputs of the accelerometer and provide, for
19 left corner.	19 example, a 12-bit representation as described
20 Q And what is Number 11? If it's helpful	20 Q Right.
21 to refresh your recollection, you can go to column	21 A in columns eight, 40 through 50.
22 six, line 13.	22 Q Right. So is the accelerometer sending
23 A Yes. I'm at column six. I was going	23 analog signals to the AD converter, 46?
24 through those sections. There are	24 A The accelerometer is receiving analog
25 Q Yes.	25 signals from the the A-to-D converter is
	3
Page 10	Page 12
1 A three accelerometers. There are	1 receiving analog signals from the accelerometer,
three accelerometers numbered ten through 12.	2 yes.
3 Q Great. So turning back to figure one	3 Q Thank you. Thank you for that. And –
4 for me, please, you'd agree with me that 11 is an	4 A It can also
5 accelerometer?	5 Q – as part of that process – oh, go
6 A Yes.	6 ahead.
7 Q And then that accelerometer, what is it	7 A Column eight also describes, you could
8 doing there? What is the purpose of the	8 receive digital inputs as well.
9 accelerometer here?	9 Q But here at least in figure one we have
10 A I understand the the specification	an AD converter, so those would likely be analog
of column six describing the various embodiments	signals coming across; correct?
with these accelerometers, ten through 12.	12 A As for column eight, lines 50 to 58, I
13 Q Sure. But generally what	believe the embodiment also cover the case where
14 functionality – what functions is the accelerometer	14 digital inputs may be received.
performing in figure one?	15 Q Sure. I guess my question was specific
16 A I think they're listed in column six	with respect to figure one. Here, figure one, why
with respect to identifying translational, angular,	would you have an A-to-D converter if it was already
18 and normal accelerations in column	18 in digital?
19 Q Is it – oh, sorry. Finish.	19 A Again, you could have different types
20 A Yes. In column six, lines ten through	20 of formats and different types of conversions that
21 12.	21 the A-to-D converters could do.
22 Q And is this description consistent with	22 Q And I don't see any storage that occurs
what you understand to be an accelerometer?	between the accelerometer and the AD converter. Do
A Are you referring to a portion of my	24 you? On figure one.
25 report or declaration? Just to be clear.	25 A Figure one is a is a high-level

3 (Pages 9 to 12)



	VIJAT K. MADISE	, .	
	Page 13		Page 15
1	block diagram, and it is not, I believe, intended to	1	disclosed in that paragraph, is there not?
2	be a detailed schematic. It is possible that this	2	A Yes. There is a disclosure in column
3	data could be stored. The it is not unusual for	3	eight, lines 45 through 50.
4	data from sensors to be collected, stored,	4	Q And did you go and try to determine any
5	processed, and forwarded.	5	information about the Max 188 disclosed in that
6	So, for example, in column ten in	6	paragraph?
7	column ten and other locations there are several	7	A I'm familiar with similar A-to-D
8	different embodiments of different types of A-to-D	8	converters, and I've used several over the past two
9	conversion as well in addition to those in seven and	9	decades. The type of converters that include these
10	eight. So one of ordinary skill in the art would	10	multiple channels that have various resolution in
11	would view this as a high-level description that may	11	terms of bits they use different types of sample
12	include local storage as well.	12	and hold circuitry do include local storage in
13	Q Sure. I guess my question is, sticking	13	terms of sampling, in terms of conversion to the
14	with figure one here, is there any storage between	14	right number of bits through successive
15	the accelerometer and the A-to-D converter? Is	15	approximation of a device. So I'm familiar with the
16	there any storage step?	16	type of A-to-D converters that are disclosed.
17	A My understanding is that reading the	17	Q My question is sure. I'm
18	description in column eight, specifically with	18	specifically asking about the Max 188 disclosed. As
19	respect to the sample and hold feature delineated in	19	of 1997 are you familiar with the functionality of
20	lines 45 through 50, it is possible that there is	20	that Max 188 disclosed here?
21	some local storage that could include counters and	21	A First of all, the Max 188 is an example
22	other hold circuitry.	22	here, and it discloses a number of multi-channel
23	Q Specifically with respect to figure	23	A-to-D converters. In my experience I've not
24	one, let me ask the question again. Is there any	24	I've looked at similar ones, but I've not in the
25	storage depicted on figure one between step 11, the	25	context of this particular case I have not
	Page 14		Page 16
1	accelerometer, and the AD converter, 46?	1	specifically looked up the data sheet of the Max 188
2	A As I said, figure one is a very	2	in this matter. But I'm I'm providing you an
3	high-level description. There is no explicit	3	answer based on my past experience with similar, if
4	identification of specific functionality of each of	4	not the same, type of converter.
5	these blocks. It is possible that block 46 may have	5	Q Obviously Stewart discloses a – are
6	access, for example, to block 48. It is possible	6	you familiar with the HAT system? Is that right?
7	that block 46 may have access to block 51.	7	A Yes.
8	In any case, at the to answer your	8	Q And you're familiar with the fact that
9	question, there is no explicit description of a	9	that HAT system can be used on multiple body parts;
10	storage within block 46 as written in English, but	10	is that correct?
11	one of ordinary skill in the art in the light of the	11	A Could you refer me to the
12	specification and knowledge would understand that	12	specification
13	A-to-D converters normally would include some form	13	Q Sure.
14	of storage.	14	A that you are referring to?
15	Q And as far as Stewart's description of	15	Q Sure. Exhibit 1004, column four,
16	A-to-D converter 46, is there any explicit teaching	16	starting at line 32, it says, "While developed
17	in Stewart that that A-to-D converter, 46, had	17	specifically for the head, monitoring of other body
18	storage?	18	parts or the body in general is envisioned."
19	A Yes. In column eight it describes the	19	Do you see that?
20	use of a hold type of feature, so using hold, using	20	A In the summary of the invention there
21 22	counters, and other types of disclosures of column	21	is the disclosure that you just read out.
23	eight, lines 40 through 60, would indicate that	22	Q Right. So you would agree with me,
24	there is explicit disclosure of forms of storage	23	then, as one of ordinary skill in the art, Stewart's
	within the embodiments disclosed in the 972.	24	invention applied to not just the head, but other
25	Q And I see that there is a Max 188	25	body parts?

4 (Pages 13 to 16)



Page 1	7 Page 19
1 A Yes. It is contemplated and envisioned	1 Q You don't understand that I believe
2 that the invention, though specifically designed for	2 Stewart does talk about illegal sparring moves in
3 the head, could in general monitor monitor other	3 football. Correct?
4 body parts.	4 A Where do you see that?
5 Q And is the head a body part, in your	5 Q You don't recall that one way or
6 opinion?	6 another from your review of Stewart?
7 A Yes.	7 A I mean, as I said, I mean, Stewart has
8 Q But you'd agree with me, for example, a	8 a lot of disclosures. I mean, could you be more
9 golf club would not be a body part; correct?	9 specific?
10 A A golf club is not a I don't believe	10 Q No. I'm just asking you generally
11 it's a it's a body part.	about your understanding of Stewart. So, for
12 Q And one of the goals of Stewart is, it	example, Stewart tries to let the sportsman move how
was designed to not inhibit or impact the ability of	they're going to move in their respective sport and
14 a user to perform a sport; correct?	the invention itself not inhibit that movement. Do
15 A Again, could you refer me to the	15 you agree with that?
16 section that you're referring to?	16 A I mean, again, I would say that we
17 Q Are you generally familiar with the	17 should refer to the description that in column
contents in the disclosures of Stewart in connection	18 six, 25 through 29, in Stewart's own words. I would
19 with your opinions?	19 agree that it would allow the sports person to
20 A Yes, I am. But since it is a very	20 perform the sport without hindering, inhibiting, or
21 precise question, if you have a particular section	21 otherwise affecting. I don't see any disclosure
that you are trying to get me to comment on, I'll be	22 that it I don't see a disclosure of Stewart with
23 glad to do that.	23 respect to illegal moves, unless you can
24 Q So six, line 27.	24 Q Sure.
25 A Yes. I'm looking at column six, lines	25 A you can point something to me.
Page 18	Page 20
1 27.	1 Q I'm just asking for your general
2 Q Yes. And actually I believe it starts	2 understanding of Stewart in connection with your
3 closer to 25.	3 opinions here. So with respect to –
4 A Okay.	4 A I don't see
5 Q "In this way the HAT is comfortable	5 Q Stewart
6 enough for the sports person to wear in relevant	6 A Yes. I don't see such
7 everyday sports activities without hindering,	7 Q Go ahead.
8 inhibiting, or otherwise affecting the ability of	8 A I don't see the explicit connection
9 the user to perform a sport"; correct?	9 here.
10 A Yes. That is what the specification	10 Q Understood. And with respect to
confirms in column six, lines 25 through 29.	Stewart, it's trying to not restrain any movement;
12 Q And that is consistent with your	12 correct?
13 understanding of Stewart: That it is trying to let	13 A My understanding is that it does not
the sportsman play the sport without any inhibiting	14 hinder, inhibit, or otherwise affect the ability of
based on the Stewart invention; correct?	the user to perform the sport. That's how I would
16 A Yes. That is consistent with this	16 characterize in Stewart's own words.
portion of the specification, that it's comfortable	17 Q So you don't have an opinion about
18 enough without hindering, inhibiting, or otherwise	whether Stewart restrains any movement?
19 affecting the ability of the user to perform the	19 A I mean, you're using certain claim
20 sport.	20 language from the '576, which is causing, I believe,
21 Q Right. So, for example, if someone	the confusion. Stewart in his own words describes
22 wants to do an illegal sparring move in football,	in column six that everyday sports can be are not
the Stewart invention is not going to inhibit them	affected, and there is no hindering, inhibiting, or
24 from doing that; correct?	24 otherwise affecting the ability of the user to
25 A I don't see that disclosure here.	25 perform the sport.
A TOOL (SEE MICH COSULE MELE.	perioriii trie sport.

5 (Pages 17 to 20)



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