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8   UNITED STATES DISTRICT COURT

9   SOUTHERN DISTRICT OF CALIFORNIA

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11   QUALCOMM INCORPORATED,   Case No.: 17cv1375 DMS(MDD)

12   Plaintiff,   **ORDER CONSTRUING CLAIMS**

13   v.

14   APPLE INCORPORATED,

15   Defendant.

16

17   APPLE INCORPORATED,

18   Counter Claimant,

19   v.

20   QUALCOMM INCORPORATED,

21   Counter Defendant.

22

23   This matter came before the Court for a claim construction hearing on August 7,

24   2018.   David Nelson, Nathan Hamstra and Patrick Schmidt appeared on behalf of

25   Qualcomm, and Juanita Brooks, James Dowd and Joseph Mueller appeared on behalf of

26   Apple. After a thorough review of the parties' claim construction briefs and all other

27   material submitted in connection with the hearing, the Court issues the following order

28   construing the disputed terms of the patents at issue here.

Intel v. Qualcomm
Exhibit 1328

I.

BACKGROUND

There are four Qualcomm patents at issue in this case, two of which contain claim terms that require construction: United States Patents Numbers 8,698,558 ("the '558 Patent") and 8,633,936 ("the '936 Patent").[1] There are three terms at issue in each of these Patents.   In the '558 Patent, the disputed terms are "envelope signal," "based on" and "receive … a first supply voltage" / "receiving … the first supply voltage."   Each of these terms is found in claim 6, which recites:

> An apparatus for wireless communication, comprising:
>
> a power amplifier operative to receive and amplify an input radio frequency (RF) signal and provide an output RF signal; and
>
> a supply generator operative to receive an envelope signal and a first supply voltage, to generate a boosted supply voltage having a higher voltage than the first supply voltage, and to generate a second supply voltage for the power amplifier based on the envelope signal and the boosted supply voltage, wherein the supply generator incorporates an operational amplifier (op-amp) operative to receive the envelope signal and provide an amplified signal, a driver operative to receive the amplified signal and provide a first control signal and a second control signal, a P-channel metal oxide semiconductor (PMOS) transistor having a gate receiving a first control signal, a source receiving the boosted supply voltage or the first supply voltage, and a drain providing the second supply voltage, and an N-channel metal oxide semiconductor (NMOS) transistor having a gate receiving the second control signal, a drain providing the second supply voltage, and a source coupled to circuit ground."

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[1] The other Qualcomm Patents at issue are United States Patents Numbers 8,838,949 ("the '949 Patent") and 9,535,490 ("the '490 Patent").   The parties also briefed claim construction issues for another Qualcomm Patent, U.S. Patent No. 9,608,675 ("the '675 Patent").   However, the parties have since dismissed all claims related to the '675 Patent. Accordingly, the Court does not address any claim construction issues on that Patent.

1   In the '936 Patent, the disputed terms are "programmable streaming processor",

2   "conversion instruction that ... converts graphics data ... from a first data precision to

3   converted graphics data having a second data precision," and "graphics instruction." Each

4   of these terms is found in claim 19, which recites:

5   A device comprising:

6   a controller configured to receive a graphics instruction for execution within
            a programmable streaming processor, wherein the indication of the data
7   precision is contained within the graphics instruction and wherein the graphics
8   instruction is a first executable instruction generated by a compiler that
            complies graphics application instructions, to receive an indication of a data
9   precision for execution of the graphics instruction, and to receive a conversion
            instruction that, when executed by the programmable streaming processor,
10   converts graphics data associated, with the graphics instruction, from a first
11   data precision to converted graphics data having a second data precision,
12   wherein the conversion instruction is different than the graphics instruction
            and wherein the conversion instruction is generated by the compiler; and
13

14   a plurality of execution units within the processor,
15

16   wherein the controller is configured to select one of the execution units based
            on the indicated data precision and cause the selected execution unit to execute
17   the graphics instruction with the indicated data precision using the converted
            graphics data associated with the graphics instruction.
18

19   Four of the disputed terms at issue here were the subject of claim construction

20   proceedings before the International Trade Commission ("ITC"), specifically, "envelope

21   signal," "based on," "programmable streaming processor" and "conversion instruction that

22   … converts graphics data … from a first data precision to converted graphics data having

23   a second data precision." (*See* Qualcomm's Opening Claim Construction Br., Ex. 9.) The

24   parties rely on the ITC's claim constructions in their arguments here, but the ITC's claim

25   constructions are not binding on this Court. *Texas Instruments Inc. v. Cypress*

26   *Semiconductor Corp.*, 90 F.3d 1558, 1569 (Fed. Cir. 1996) (stating "that ITC decision are

27   not binding on district court in subsequent cases brought before them[.]") With this

28   background, the Court turns to the claim construction issues.

II.

DISCUSSION

Claim construction is an issue of law, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996), and it begins "with the words of the claim." *Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1142 (Fed. Cir. 2005) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Generally, those words are "given their ordinary and customary meaning." *Id.* (citing *Vitronics*, 90 F.3d at 1582). This "'is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.'" *Id.* (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)). "The person of ordinary skill in the art views the claim term in the light of the entire intrinsic record." *Id.* Accordingly, the Court must read the claims "'in view of the specification, of which they are a part.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). In addition, "'the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.'" *Id.* (quoting *Phillips*, 415 F.3d at 1318).

A.   The '558 Patent

As stated above, there are three terms at issue in the '558 Patent: (1) "envelope signal," (2) "based on" and (3) "receive … a first supply signal" / "receiving … the first supply signal."

1.   "Envelope signal"

Turning to the first term "envelope signal," Qualcomm proposes the Court construe this term as "signal indicative of the upper boundary of the output RF signal." Apple proposes the Court construe this term according to its plain and ordinary meaning, or in the alternative, that the term be construed as "signal indicative of the upper boundary of another signal."

/ / /

1   Both sides rely on the specification to support their proposed constructions.

2   Qualcomm relies specifically on Figure 2C, which depicts an envelope tracker receiving

3   "an envelope of the RFout signal[.]" ('558 Patent at 4:22-24.)   However, this sole

4   embodiment does not warrant imposition of Qualcomm's proposed limitation into the

5   claim language. As Qualcomm concedes, another portion of the specification refers to "the

6   envelope of the RFin signal[.]" (*Id.* at 3:64-65.) Accordingly, the Court adopts Apple's

7   proposed construction of "envelope signal" as "signal indicative of the upper boundary of

8   another signal."

9   2.   "Based on"

10   The second term at issue is "based on." Qualcomm asserts this term should be

11   construed according to its plain and ordinary meaning. Apple argues the term is indefinite

12   as used in claim 7 of the '558 Patent.[2]

13   Claim 7 depends from claim 6, which is set out above. Whereas claim 6 recites "a

14   second supply voltage for the power amplifier based on the envelope signal *and* the boosted

15   supply voltage[,]" (emphasis added), claim 7 provides: "The apparatus of claim 6, wherein

16   the supply generator is operative to generate the second supply voltage based on the

17   envelope signal *and either* the boosted supply voltage *or* the first supply voltage."

18   (emphasis added). In *Multilayer Stretch Cling Film Holding, Inc. v. Berry Plastics Corp.*,

19   831 F.3d 1350 (Fed. Cir. 2016), the court discussed claims with a structure similar to claims

20   6 and 7 here, and that were subject to a similar challenge of indefiniteness. There, the

21   independent claim was construed to be limited to the four resins recited therein, while the

22   dependent claim included a different type of resin. *Id.* at 1360-62. The district court found

23   the dependent claim was invalid, and the Federal Circuit affirmed that decision, stating:

24   "A dependent claim that contradicts, rather than narrows, the claim from which it depends

25   is invalid." *Id.* at 1362.

26   _____

27

28   [2] Outside of claim 7, it appears the parties agree that "based on" should be construed
according to its plain and ordinary meaning.

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