

**United States District Court**  
**EASTERN DISTRICT OF TEXAS**  
**SHERMAN DIVISION**

DARELTECH, LLC,	§	
	§	
v.	§	
	§	Civil Action No. 4:18cv702
SAMSUNG ELECTRONICS CO., LTD.,	§	Judge Mazzant
ET AL.	§	

**MEMORANDUM OPINION AND ORDER**

Pending before the Court are Plaintiff Dareltech, LLC’s (“Plaintiff” or “Dareltech”) Claim Construction Opening Brief (Dkt. #38), Defendant Samsung Electronics Co., Ltd.’s (“Defendant” or “Samsung”) Responsive Claim Construction Brief (Dkt. #39), and Plaintiff’s Claim Construction Reply Brief (Dkt. #45). Also before the Court are the parties’ October 1, 2019 Joint Claim Construction and Prehearing Statement (Dkt. #35) and the parties’ January 10, 2020 Joint Claim Construction Chart (Dkt. #51). The Court held a claim construction hearing on February 27, 2020, to determine the proper construction of the disputed claim terms in United States Patent Nos. 8,593,427 (the “’427 Patent”); 8,717,328 (the “’328 Patent”); and 9,075,612 (the “’612 Patent”) (collectively, the “patents-in-suit”).

The Court issues this Claim Construction Memorandum Opinion and Order and hereby incorporates-by-reference the claim construction hearing and transcript as well as the demonstrative slides presented by the parties during the hearing. For the following reasons, the Court provides the constructions set forth below.

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## BACKGROUND

Plaintiff alleges infringement of United States Patent Nos. 8,593,427, 8,717,328, and 9,075,612. The '427 Patent and '328 Patent share a common specification. The '427 Patent, titled "System and Method for Managing Display Power Consumption," issued on November 26, 2013, and bears an earliest priority date of May 10, 2013. The '328 Patent is also titled "System and Method for Managing Display Power Consumption," issued on May 6, 2014, and bears an earliest priority date of May 23, 2013. Plaintiff submits that the '427 and '328 Patents relates to "various aspects of managing display power consumption" (Dkt. #38 at p. 6).<sup>1</sup> The Abstract of the '427 and '328 Patents states:

Systems and methods for managing display power consumption are disclosed. In some embodiments first information is displayed in an available display area including a first portion of a display screen in a configuration having a set of portions. The set of portions includes the first portion of the display screen, which is configured in a powered-on state to perform display functions and receive user input, and a second portion of the display screen, which is configured in a powered-off state. Responsive to a user indication in the in the first portion, the second portion is added to the available display area by transitioning the second portion to the powered-on state to perform display functions and receive user input. Second information is displayed in the second portion.

The '612 Patent is a continuation-in-part of the '328 Patent and '427 Patent. The '612 Patent, titled "System and Method for Managing Display Power Consumption," issued on July 7, 2015, and bears an earliest priority date of May 10, 2013. Plaintiff submits that the '612 Patent "describes various modes of operation, including a mode which may be selected by swiping on an object displayed on the screen." (Dkt. #38 at p. 8). The Abstract of the '612 Patent states:

A device includes a display screen that may be directed to function in one of multiple modes. The device may be configured to direct the display to shift between modes. In one mode, first information is displayed in an available display area including a first portion of a display screen in a display screen mode having a set of portions of the display screen. The set of portions may include the first portion

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<sup>1</sup> Citations to the parties' filings are to the filing's number in the docket (Dkt. #) and pin cites are to the page numbers assigned through ECF.

of the display screen, which is configured in a powered-on state to perform display functions and receive user input, and a second portion of the display screen, which is configured in a powered-off state. In another mode, the entire screen may function in a powered-on state. One of the particular modes may be selected by swiping on object displayed by the screen to select a particular mode while the display is in a sleep mode.

## LEGAL STANDARDS

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995). The purpose of claim construction is to resolve the meanings and technical scope of claim terms. *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). When the parties dispute the scope of a claim term, “it is the court’s duty to resolve it.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008).

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent’s intrinsic evidence to define the patented invention’s scope. *Id.* at 1313–14; *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification, and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court’s construction of claim terms. *Phillips*, 415 F.3d at 1314. “[T]he context in which a term is used in the asserted claim can be highly instructive.” *Id.* Other claims, asserted and unasserted, can provide additional instruction because “terms are normally used consistently throughout the patent.” *Id.* Differences among claims, such as additional

limitations in dependent claims, can provide further guidance. *Id.*

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 979). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term a different meaning than it would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. See *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. See *Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex*, 299 F.3d at 1325. For example, “[a] claim interpretation that excludes a preferred embodiment from the scope of the claim ‘is rarely, if ever, correct.’” *Globetrotter Software, Inc. v. Elan Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics*, 90 F.3d at 1583). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); accord *Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent.”). The well-established doctrine of prosecution disclaimer “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng’g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). “Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover.” *Spectrum Int’l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988) (quotation omitted). “As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on definitive statements made during prosecution.” *Omega Eng’g*, 334 F.3d at 1324. However, the prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002). Statements will constitute disclaimer of scope only if they are “clear and unmistakable statements of disavowal.” See *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1358 (Fed. Cir. 2003). An “ambiguous disavowal” will not suffice. *Schindler Elevator Corp. v. Otis Elevator Co.*, 593 F.3d 1275, 1285 (Fed. Cir. 2010) (citation omitted).

Although “less significant than the intrinsic record in determining the legally operative meaning of claim language,” the Court may rely on extrinsic evidence to “shed useful light on the relevant art.” *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may

not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful.” *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), abrogated on other grounds by *Nautilus*, 134 S. Ct. 2120. “Indefiniteness must be proven by clear and convincing evidence.” *Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

## ANALYSIS

### I. Agreed Claim Terms

The parties agreed to the constructions of the following terms/phrases in their January 10, 2020 Joint Claim Construction Chart Pursuant to P.R. 4-5(d):

Claim Term/Phrase	Agreed Construction
“powered-off state” ’427 Patent: Claims 1, 7, 13; ’328 Patent: Claims 1, 8, 15; ’612 Patent: Claims 10, 14, 17.	“state in which no power is applied”

<p>“powered-on state”</p> <p>’427 Patent: Claims 1, 2, 5, 7, 8, 11, 13, 14;</p> <p>’328 Patent: Claims 1, 3, 5, 8, 10, 13, 15, 17;</p> <p>’612 Patent: Claims 10, 13, 14, 15.</p>	<p>“state in which power is applied”</p>
<p>“a particular unlock gesture of the unlock gestures”</p> <p>’612 Patent: Claims 10, 14.</p>	<p>“one unlock gesture from the group of unlock gestures associated with the unlock image”</p>
<p>“another particular unlock gesture of the unlock gestures”</p> <p>’612 Patent: Claims 10, 14.</p>	<p>“a different unlock gesture from the group of unlock gestures associated with the same unlock image”</p>
<p>“unlock gestures”</p> <p>’612 Patent: Claims 10, 14.</p>	<p>“gestures for unlocking an electronic device”</p>
<p>“gesture”</p> <p>’612 Patent: Claims 10, 11, 12, 14.</p>	<p>“a motion of the object/appendage making contact with the touch screen (e.g. a pattern drawn with a user’s finger)”</p>
<p>“locked state”</p> <p>’612 Patent: Claims 10, 14, 16.</p>	<p>“a state in which a user is prevented from accessing specific functions or capabilities”</p>
<p>“unlocked state”</p> <p>’612 Patent: Claims 10, 14.</p>	<p>“a state in which the device is not prevented from performing a predefined set of actions”</p>
<p>“the powered-off state”</p> <p>’612 Patent: Claims 10, 17;</p> <p>’328 Patent: Claims 1, 8, 15.</p>	<p>“a powered-off state”</p>



<p>“the other particular unlock gesture further comprises causing the other portion of the display to not perform display functions and not receive user input” ’612 Patent, Claim 11.</p>	<p>The parties agree that antecedent basis for this phrase is “another particular unlock gesture of the unlock gestures...” in claim 10</p>
<p>“the other particular unlock gesture” ’612 Patent, Claim 11.</p>	<p>The parties agree that antecedent basis for this phrase is “another particular unlock gesture of the unlock gestures” in claim 10</p>
<p>“the other portion” ’612 Patent: Claims 11, 17.</p>	<p>The parties agree that antecedent basis for this phrase is “another portion of the display in the powered-off state” in claim 10 (for claim 11) and “another portion of the display in a powered-off state” in claim 14 (for claim 17)</p>
<p>“the particular unlock gesture further comprises causing the portion of the display to perform display functions and receive user input” ’612 Patent, Claim 12.</p>	<p>The parties agree that antecedent basis for this phrase is “a particular unlock gesture of the unlock gestures” in claim 10</p>
<p>“the portion” ’612 Patent: Claims 12, 15.</p>	<p>The parties agree that antecedent basis for this phrase is “at least a portion of the display in a powered-on state” in claim 10 (for claim 12) and “at least a portion of the display in a powered-on state” in claim 14 (for claim 15)</p>
<p>“the powered-on state of the proportional configuration mode” ’612 Patent, Claim 15.</p>	<p>The parties agree that antecedent basis for this phrase is “a proportional configuration mode that puts at least a portion of the display in a powered-on state” in claim 14</p>
<p>“the powered-off state of the proportional configuration mode” ’612 Patent, Claim 17.</p>	<p>The parties agree that antecedent basis for this phrase is “another portion of the display in a powered-off state” in claim 14</p>

(Dkt. #51, Exhibit 3 at pp. 2–4). In view of the parties’ agreement on the proper construction of the identified terms, the Court hereby **ADOPTS** the parties’ agreed constructions.

During the Claim Construction Hearing, the parties agreed to the construction of the

following term:

<b>Claim Term/Phrase</b>	<b>Agreed Construction</b>
“power management module”  '612 Patent, Claims 10, 14	“a module that manages power”

In view of the parties’ agreement on the proper construction of the identified term, the Court hereby **ADOPTS** the parties’ agreed constructions.

## **II. Disputed Claim Terms**

### **A. “mathematically upscaling,” “upscaled,” “scaling”**

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendant’s Proposal</u>
“mathematically upscaling”	“increasing the active area of a display screen displaying visual elements of a software application (e.g. displaying an application screen of a software application that is larger than a corresponding icon of the software application)”	“using mathematical techniques to make a displayed image larger”
“upscaled”		
“scaling”	Same construction as “mathematically upscaling”	

(Dkt. #51, Exhibit 2 at p. 2). The parties submit that the terms “mathematically upscaling” and “upscaled” appear in Claims 1, 7, and 13 of the ’427 Patent. (Dkt. #51, Exhibit 2 at p. 2). The parties submit that the term “scaling” appears in Claim 5 of the ’328 Patent. (Dkt. #51, Exhibit 2 at p. 2).

### **1. The Parties’ Positions**

The parties dispute whether “mathematically upscaling” requires making “a displayed image larger,” as Defendant proposes, or if it instead requires “increasing the active area of a display screen displaying visual elements,” as Plaintiff proposes. Plaintiff argues that there is no

basis to include the term “image” in construing mathematical upscaling, because independent claims 1, 7, and 13 of the ’427 Patent specify that the “first information” is mathematically upscaled, and not an “image.” (Dkt. #38 at pp. 16–17). Plaintiff further argues that there is no mention of mathematically upscaling an “image” in the claims of the ’328 Patent. (Dkt. #38 at p. 17).

Plaintiff also contends that “first information” is never limited to an “image” in the specification or claims. (Dkt. #38 at p. 17). According to Plaintiff, the figures show that when a second portion is added to the available display area second information is generated by mathematically upscaling the first information as proposed in its construction. (Dkt. #38 at pp. 17–18) (citing ’427 Patent at Figures 5 & 6). Plaintiff further argues that the patentees acted as their own lexicographers with respect to the phrase “mathematically upscaling.” (Dkt. #38 at p. 19) (citing Dkt. #38, Exhibit 9 at 145:7-22; Dkt. #38, Exhibit 10). Finally, Plaintiff argues that the term “mathematically upscaling” does not appear in the examiner’s Reasons for Allowance. (Dkt. #38 at p. 19) (citing Dkt. #38, Exhibit 4 at pp. 181–183). Plaintiff contends that the examiner understood that the second information need not be image data and could include text data. (Dkt. #38 at pp. 19–20) (citing Dkt. #38, Exhibit 4 at p. 143).

Defendant responds that the specifications of the ’427 Patent and ’328 Patent contain no definitions for either the terms “mathematically upscaling” or “upscaling,” and that there is nothing in the intrinsic evidence that indicates that the patentees acted as their own lexicographer. (Dkt. #39 at pp. 15–16) (citing Dkt. #38, Exhibit 10 at 6; Dkt. #38, Exhibit 9 at 148:23-149:7; ’427 Patent at 5:15–16, 22:63–65, 24:19–20, Figure 27). Defendant further argues that nothing in Figures 5 and 6 has been scaled. (Dkt. #39 at pp. 16-17) (citing ’427 Patent at 16:65–17:43).

Defendant next argues that Figs. 7–8 explicitly show an image that has been “upscaled.”

(Dkt. #39 at p. 18) (citing '427 Patent at 18:46–53, Figures 7–10). Defendant also contends that the specifications in each patent explicitly state that image size is determined by scaling. (Dkt. #39 at p. 19) (citing '427 Patent at 18:1–8, 18:46–53). Defendant further argues that all the “information” disclosed in the specification and recited in the claims comprises images displayed to a user. (Dkt. #39 at p. 19) (citing '427 Patent at 4:44–47). Defendant also argues that the examiner understood that “mathematically upscaling” involved enlarging an image. (Dkt. #39 at p. 20) (citing Dkt. #38, Exhibit 4 at pp. 142–43; Dkt. #38, Exhibit 5 at pp. 129–30). Defendant also contends that the extrinsic evidence supports its construction. (Dkt. #39 at pp. 21–22). Finally, Defendant argues that there is no support for Plaintiff’s construction. (Dkt. #39 at p. 23) (citing '427 Patent at Claim 1, 28:61–64, 18:1–8).

Plaintiff replies that no embodiment in the '428 Patent or '328 Patent require that an image is upscaled. (Dkt. #45 at p. 4). Plaintiff argues that “upscaling” has more than one “ordinary” meaning, and Defendant’s reliance on the term’s “ordinary” meaning does not resolve the parties’ dispute. (Dkt. # 45 at p. 4). Plaintiff further contends that the patentees acted as their lexicographer, because the specification may define claim terms “by implication” such that the meaning may be “found in or ascertained by a reading of the patent documents.” (Dkt. #45 at p. 5) (citing *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1344 (Fed. Cir. 2001)). According to Plaintiff, “mathematically upscaling is the step that **populates** the increased, active area of the display with content.” (Dkt. #45 at p. 5) (emphasis in original). Finally, Plaintiff argues that the marketing material cited by Defendant is not helpful to the Court in light of the intrinsic evidence. (Dkt. #45 at p. 6).

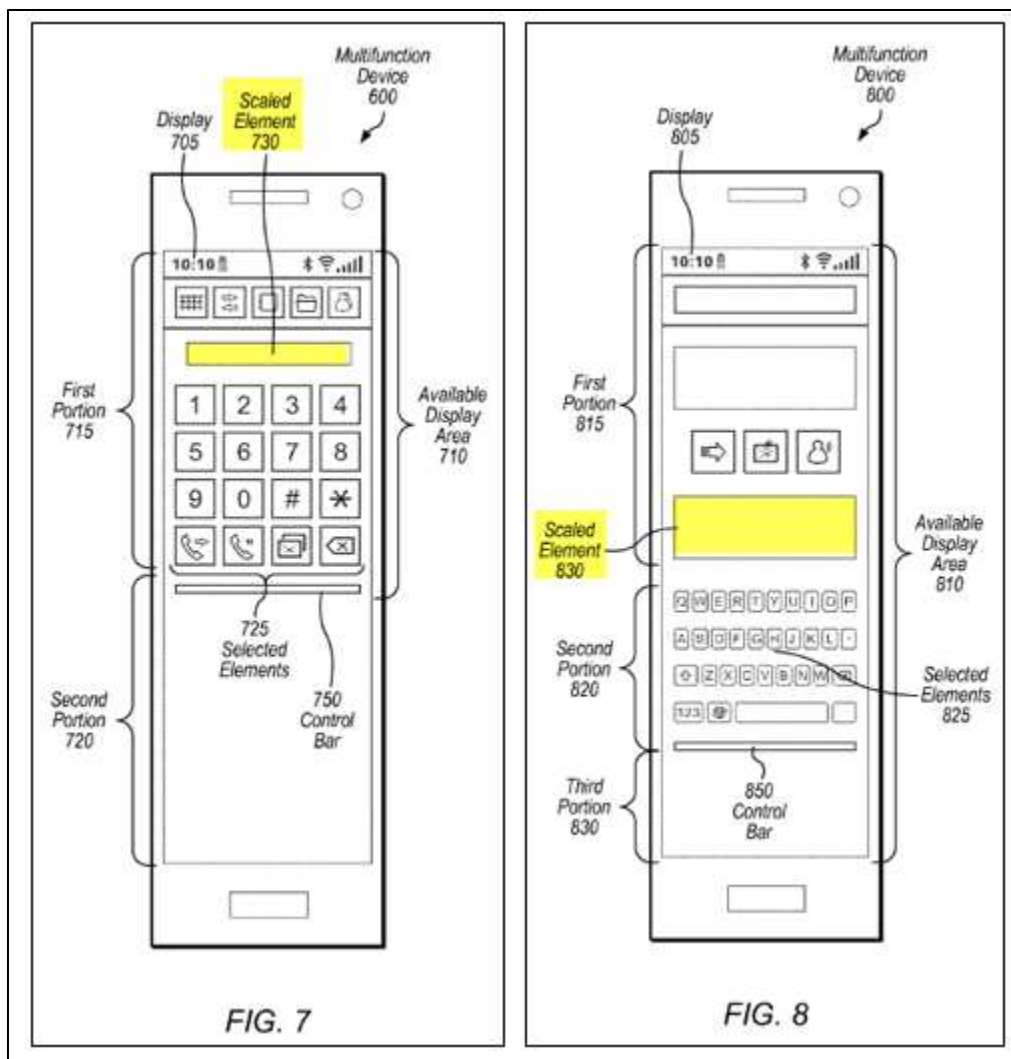
## 2. Analysis

As an initial matter, the parties agree that the terms “mathematically upscaling,”

“upscaled,” and “scaling” should have the same construction. (Dkt. #39 at p. 24 n.10; Dkt. #51, Exhibit 2 at p. 2). The Court agrees that the arguments and evidence applies equally to each of these terms, but notes that the usage of each terms varies. Accordingly, the Court will construe each term consistent with how it appears in the claim.

Starting with the claim language, the claims generally recite two portions of a display screen, with one portion initially in a powered-off state. The powered-off portion is then powered-on and added to the available display area. Specifically, claim 1 recites “displaying first information in an available display area comprising a first portion of a display screen,” and then adding a second portion of the display screen “to the available display area by transitioning the second portion to the powered-on state.” Second information is then displayed in the second portion. Claim 1 recites that the second information is generated “by mathematically upscaling the first information, wherein the second information comprises a portion of the first information upscaled for display in both the second portion and the first portion.” Thus, the claim language indicates that upscaling means “increasing the size of.” Specifically, the claim language recites that after the second portion of the display is added to the available display, the displayed first information must be in “both the second portion and the first portion,” which indicates that the first information must be increased in size.

The specification further confirms that “mathematically upscaling” means “increasing the size of.” For example, Figures 7 and 8 show an image that has been “upscaled.” Specifically, “scaled element” (830) in Figure 8 is larger than “scaled element” (730) in Figure 7.



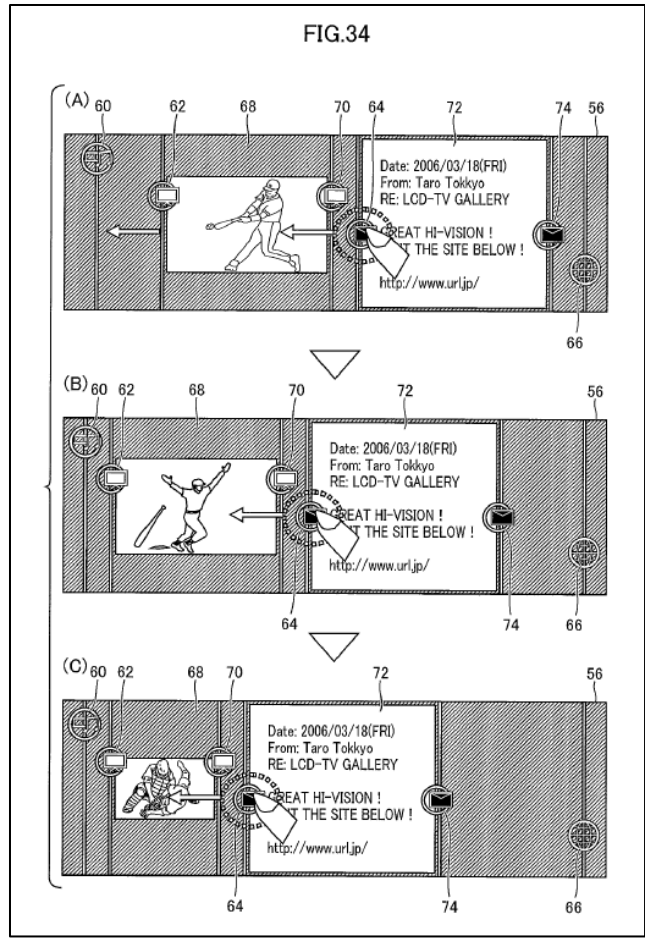
'427 Patent at Figures 7 & 8 (highlight added). Moreover, the specification explicitly states that image size is determined by scaling:

In some embodiments, a size of scaled element 730 is determined by scaling elements of the graphical content data structure for display in the available display area based at least in part on a dimension of the available display area. In some embodiments, a size of scaled element 730 is determined by scaling elements of the graphical content data structure for display in the available display area based at least in part on whether the second portion is in a powered-on state.

Id. at 18:1–8 (emphasis added); see also 18:46–53 (same discussion regarding Figure 8). These excerpts are the only parts of the patents that relate to upscaling, and therefore indicate that it is directed to the image size. Indeed, Plaintiff admits that the specifications of the '427 Patent and

'328 Patent contain no definitions for either the terms “mathematically upscaling” or “upscaling.” (Dkt. #38, Exhibit 10 at 5) (“With regard to ‘mathematically upscaling,’ the specification does not define ‘upscaling’”; see also Dkt. #39, Exhibit 3 at 148:23-149:7 (“I don’t know that there would be anywhere in the patent that defines that in the way you are asking.”). A search of the specification indicates that the term “mathematically upscaling” is used with no further definition and only appears in the exact way it is recited in the claim language (i.e., “generating the second information by mathematically upscaling the first information”). See e.g., '427 Patent at 5:15–6, 22:63–65, 24:19–20, Figure 27)..

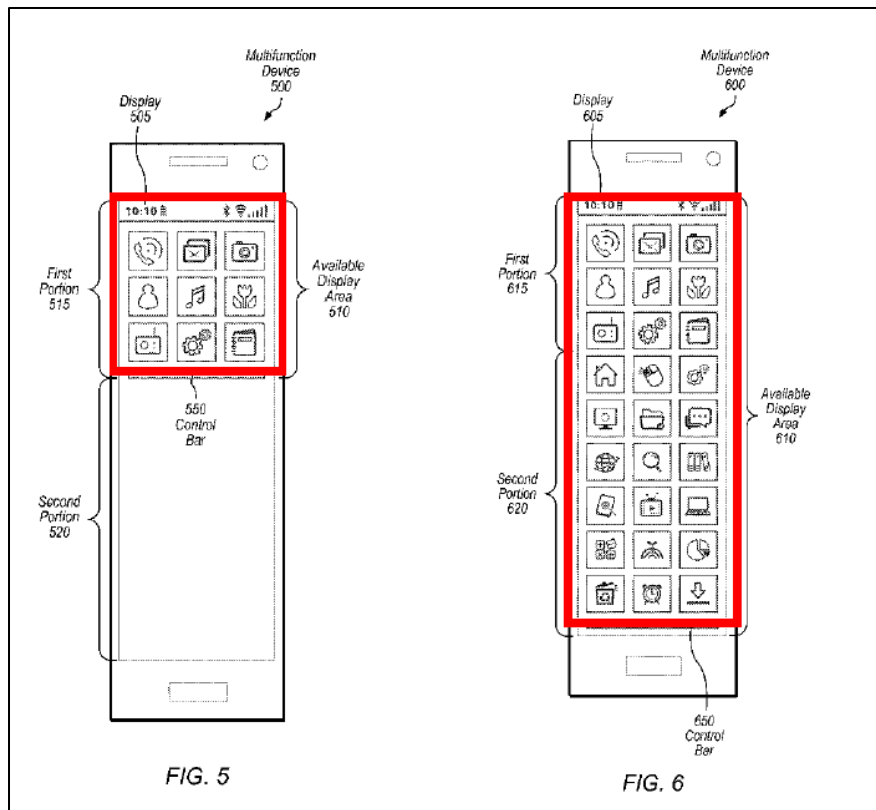
The prosecution histories of the '427 and '328 Patents also indicates that “mathematically upscaling” means “increasing the size of.” For example, during prosecution of both the '427 Patent and '328 Patent, the Examiner stated that the “mathematically upscaling” limitation was taught by U.S. Pat. App. Pub. No. 2010/0088634 to Tsuruta et al. (“Tsuruta”). Tsuruta disclosed that the “overall size of the output image may be enlarged or reduced with its aspect ratio maintained.” (Dkt. #38, Exhibit 4 at p. 143; Dkt. #38, Exhibit 5 at pp. 129-130). An example of this is illustrated in Figure 34 from Tsuruta:



Tsuruta at Figure 34. Thus, a person of ordinary skill in the art would understand that “mathematically upscaling” involved “increasing the size of.”

Plaintiff contends that “[t]here is not a single example or description of making a displayed image larger.” (Dkt. #38 at p. 18). Specifically, Plaintiff argues that Figure 6 illustrates the second portion of the display in the available display area expanded from the first portion of the display in Figure 5. (Dkt. #38 at p. 18).





'427 Patent at Figures 5 & 6. The Court disagrees with Plaintiff's characterization of Figures 5 and 6. Figure 5 shows a first portion of the screen (515) that is powered-on, and displays nine icons, along with certain other graphical indications (e.g., time). Figure 5 further illustrates that a second portion of the screen (520) is powered-off. Figure 6 shows a display where the second portion (620) is powered-on, and displays an additional eighteen icons. Nowhere in either of these figures has anything been upscaled.

Indeed, Figure 6 only adds "second information" displayed in the "the second portion." However, the "second information" displayed in Figure 6 does not include "a portion of the first information upscaled for display in both the second portion and the first portion," as required by Claim 1 of the '427 Patent. Instead, the "first information" is only displayed in the "first portion," and is not displayed in the "second portion." In contrast to Figures 5 and 6, Figures 7 and 8 illustrate "scaled elements," one of which (830) is larger than the other (730). Moreover, the

specification states that “a size of scaled element 730 is determined by scaling elements.” ’427 Patent at 18:1. Accordingly, the Court rejects Plaintiff’s argument that “[t]here is not a single example or description of making a displayed image larger.” (Dkt. #38 at p. 18).

Turning to the parties’ constructions, Plaintiff’s construction can be divided into two parts. The first part recites “increasing the active area of a display screen displaying visual elements of a software application.” The second part is a parenthetical that recites “(e.g. displaying an application screen of a software application that is larger than a corresponding icon of the software application).” Regarding the first part of Plaintiff’s construction, Plaintiff asserts that “mathematical upscaling” results in “increasing the active area of a display screen.” However, increasing the area of the display is already recited in the claims, and would render the term “mathematical upscaling” meaningless. For example, claim 1 recites the following in a separate element: “responsive to a user indication in the in the [sic] first portion, adding the second portion to the available display area by transitioning the second portion to the powered-on state to perform display functions and receive user input.” ’427 Patent at Claim 1 (emphasis added).

Plaintiff argues that it does not take the position that mathematically upscaling itself increases the area of the display screen. (Dkt. #45 at p. 5). Instead, Plaintiff contends that it “described that mathematically upscaling is the step that **populates** the increased, active area of the display with content.” (Dkt. #45 at p. 5) (emphasis in original). First, the term “populates” does not appear in Plaintiff’s construction. More importantly, Plaintiff’s construction plainly states “increasing the active area of a display screen,” which is recited earlier in the claims.

During the Claim Construction Hearing, Plaintiff argued that the recited “first information” can include information that is not displayed until it is upscaled. The Court agrees that the “first information” may include additional information not displayed before upscaling. However, the

claims require upscaling the displayed portion of the first information, and not an undisplayed portion of the first portion. For example, claim 1 of the '427 Patent recites “displaying first information in an available display area comprising a first portion of a display screen . . . generating the second information by mathematically upscaling the first information, wherein the second information comprises a portion of the first information upscaled for display in both the second portion and the first portion” Accordingly, the Court rejects Plaintiff’s argument that the first information that is displayed does not require upscaling.

Regarding the second part of Plaintiff’s construction, the example of Figures 5 and 6 provided by Plaintiff does not meet the parenthetical portion of Plaintiff’s construction. Instead, Figure 6 shows a display where the second portion (620) is powered-on and displays an additional eighteen icons. This is not “displaying an application screen of a software application that is larger than a corresponding icon of the software application.” Contrary to Plaintiff’s contention, Figure 5 and 6 do not provide evidence of lexicography. To act as a lexicographer, a patentee “must clearly express that intent in the written description.” *Merck & Co., Inc. v. Teva Pharmaceuticals USA, Inc.*, 395 F.3d 1364, 1370 (Fed. Cir. 2005). As the Federal Circuit has repeatedly held, this requires that “the statement in the specification must have sufficient clarity to put one reasonably skilled in the art on notice that the inventor intended to redefine the claim term.” *Id.* Plaintiff has not pointed to any evidence that meets this standard. Accordingly, the Court rejects Plaintiff’s construction.

Turning to Defendant’s construction, Defendant contends that “mathematically upscaling” means “using mathematical techniques to make a displayed image larger.” The parties originally disputed whether the term should be limited to an image. Independent claims 1, 7, and 13 of the '427 Patent recite that it is the “first information” that is mathematically upscaled, and not an

“image.” Similarly, the claims of the ’328 Patent do not recite mathematically upscaling an “image,” but instead refer to “mathematically upscaling the first information.” ’328 at Patent at claims 2, 9, and 16. Moreover, the specification does not indicate that “first information” is limited to an “image.”

Likewise, the prosecution history of the ’427 Patent and ’328 Patent indicate that the examiner understood that the second information (i.e. the information that is “mathematically upscaled”) need not be image data, but could also include text data. (Dkt. #38, Exhibit 4 at p. 143) (describing, in the prior art, that “if an output from the corresponding task is text data (e.g. second information), the text data may be displayed in a window in a font reduced inside at least in the longer direction than a font used for normal display”); see also Dkt. #38, Exhibit 5 at p. 131). Indeed, Defendant indicated during the Claim Construction Hearing that it no longer disputed the “image” aspect of its construction, and agreed that the scope of the claims included “visual elements.”

Finally, the Court notes that the disputed terms are “mathematically upscaling,” “upscaled,” and “scaling,” without any additional language. The parties’ constructions reads into the terms a number of unnecessary elements. For example, the disputed terms do not recite an “image,” “visual element,” “application screen,” “software application,” or “corresponding icon of the software application.” In other words, the terms “upsampling” or “scaling” do not require the additional language proposed by the parties. It is simply “increasing the size of,” with the surrounding claim language providing the context on what is increased in size. Thus, the parties’ constructions are at best redundant of the claim language and unnecessarily confusing. During the Claim Construction Hearing, the parties indicated that they generally agree with the Court’s approach.

The Court therefore hereby construes “**mathematically upscaling**” and “**scaling**” to mean “**increasing the size of.**” The Court further construes “**upscaled**” to mean “**with an increased size.**”

**B. “a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input”**

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendant’s Proposal</u>
“a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input”	“a second portion of the display screen and associated sensors, wherein the display screen is in a state where no power is applied and the associated sensors are not used to detect a touch from the user”	“a second portion of the display screen and associated sensors, both of which are in a state where no power is applied and not capable of detecting a touch from the user”

(Dkt. #51, Exhibit 2 at p. 2). The parties submit that the phrase appears in Claims 1, 7, and 13 of the ’427 Patent, and Claims 1, 8, and 15 of the ’328 Patent. (Dkt. #51, Exhibit 2 at p. 2).

**1. The Parties’ Positions**

The parties dispute whether the phrase requires both the display screen and associated sensors to be in a “powered-off state,” as Defendant contends, or whether the limitation distinguishes between the display screen and touch sensors such that the display screen is powered-off while the touch sensors stay on, as Plaintiff contends. Plaintiff argues that its construction functionally separates the display screen from the associated sensors based upon the claims and specification. (Dkt. #38 at p. 20) (citing ’427 Patent at 9:14–39; Dkt. #38, Exhibit 9 at 289:17–291:9).

Plaintiff contends that the entire premise of the claimed inventions is reducing the battery drain of a display by powering-off a portion of the display. (Dkt. #38 at p. 20) (citing ’427 Patent at 10:53–59, 4:57–59; ’328 Patent at 10:53–59, 4:56–58; Dkt. #38, Exhibit 9 at 291:12–292:15). According to Plaintiff, a person of ordinary skill in the art would therefore understand that while

the display screen could be configured in a powered-off state, the associated sensors are not powered off, but could be configured so as to be “incapable of receiving user input.” (Dkt. #38 at p. 21) (citing Dkt. #38, Exhibit 11; Dkt. #38, Exhibit 12).

Plaintiff also argues that the portions of the claim limitation in dispute were added to the application that would become the '427 Patent by the examiner in an Examiner's Amendment on October 4, 2013. (Dkt. #38 at p. 21) (citing Dkt. #38, Exhibit 4 at pp. 172–185). Plaintiff also contends that the Examiner-Initiated Interview Summary (the “Summary”), which was also included in the Examiner's October 4, 2013 transmission, is also insightful. (Dkt. #38 at p. 22). Plaintiff contends that the prosecution history suggests that the word “are” should be used in the claim instead of “is.” (Dkt. #38 at p. 22).

Plaintiff further argues that the specification discloses that the display screen is distinct and apart from the associated sensors. (Dkt. #38 at p. 22) (citing '427 Patent 9:14–38, Figure 1). Plaintiff also contends that the testimony of Defendant's expert suggests that implementation to account for Defendant's claim construction (i.e. turning off a portion of associated sensors) would not have been apparent to one of ordinary skill in the art. (Dkt. #38 at p. 24) (citing Dkt. #38, Exhibit 8 at 76:21–77:2, 79:24–80:8). Finally, Plaintiff argues that the associated sensors must always be on to detect touch as “a portion of the display screen may be removed from the powered-on state to the powered off state in response to user input.” (Dkt. #38 at p. 24) (citing '427 Patent at 4:57–59; '328 Patent at 4:56–58).

Defendant responds that the phrase “associated sensors” was added to the claims during prosecution of both the '427 and '328 Patents. (Dkt. #39 at p. 25). Defendant argues that “is” still refers to the second portion, but now the second portion includes both part of the display screen and the sensors associated with that part of the display screen. (Dkt. #39 at p. 25). Defendant also

argues that the subsequent element mirrors the language in the first use of “a second portion,” establishing that the term includes both part of the display screen and associated sensors. (Dkt. #39 at p. 26).

Defendant further argues that during an Examiner Interview, the patentees proposed amending the claims to require that touch sensors associated with a second portion of the display screen be powered-off. (Dkt. #39 at p. 26) (citing Dkt. 38, Exhibit 4 at p. 185). Defendant contends that the examiner amended the claims as proposed and then subsequently allowed the claims. (Dkt. #39 at p. 26). Defendant argues that Plaintiff should not be permitted to escape its claim amendment and prosecution history statements. (Dkt. #39 at p. 27). Defendant further contends that to the extent Plaintiff believed there was an “error” in the claims it should have sought a certificate of correction from the USPTO. (Dkt. #39 at pp. 27–28). Defendant also argues that it is irrelevant whether the specification mandates that the screen and sensors be separate. (Dkt. #39 at p. 28). Defendant further argues that whether commercial products that selectively power off sensors existed as of the filing date is not relevant. (Dkt. #39 at p. 29).

Plaintiff replies that the display and the associated sensors each have separate functionality (visual display vs. input sensor), and are not a single means. (Dkt. #45 at p. 6). According to Plaintiff, the relevant inquiry is not whether the sensors could be turned off, but whether a person of ordinary skill in the art would understand the claim term to refer to two separate aspects, display and touch sensors. (Dkt. #45 at p. 6). Plaintiff contends that “[t]he patent is silent on turning off sensors, and [Defendant] has not produced any evidence that turning off sensors was anywhere near commonplace or would have been in a POSITA’s repertoire . . .” (Dkt. #45 at p. 6).

## **2. Analysis**

The Court finds that the patentees clearly and unmistakably disclaimed embodiments that

distinguish between the display screen and touch sensors being separately powered off. “The prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.” *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985). For prosecution disclaimer to arise, “the alleged disavowing actions or statements made during prosecution [must] be both clear and unmistakable.” *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1326 (Fed. Cir. 2003).

The phrase “associated sensors” was added to the claims during prosecution of both the '427 Patent and '328 Patents. (Dkt. #38, Exhibit 4 at pp. 174–80; Dkt. #38, Exhibit 5 at pp. 191, 193, 195). The original limitation was “a second portion of the display screen, which is configured in a powered-off state.” (Dkt. #38, Exhibit 4 at pp. 174–80). In the original form, “is” referred to “the second portion” of the display screen. The element was amended to the following:

“a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input.”

(Dkt. #38, Exhibit 4 at pp. 174–80) (emphasis in original). In this amended limitation, “is” still refers to the second portion. However, now the second portion includes both part of the display screen and the sensors associated with that part of the display screen.

This understanding is also consistent with the surrounding claim language. In particular, a subsequent element recites: “responsive to a user indication in the in the [sic] first portion, adding the second portion to the available display area by transitioning the second portion to the powered-on state to perform display functions and receive user input.” (Dkt. #38, Exhibit 4 at 176–77) (emphasis added). Importantly, the subsequent element mirrors the language in the first use of “a second portion,” which established that the term includes both the display screen and associated sensors.



The prosecution history further confirms that the disputed language should be construed to require the associated sensors to be turned-off. Specifically, the claims of the then pending '427 Patent were rejected under various prior art references. (Dkt. #38, Exhibit 4 at pp. 130–57). An Examiner Interview was conducted on September 23, 2013. To overcome the rejections, the patentees proposed amending the claims to require that the touch sensors associated with a second portion of the display screen be powered-off. Specifically, the examiner indicated that the “Applicant proposed amending claim language of claim 1, and other corresponding independent claims to recite turning off touch detection sensors of the display screen which are incapable of receiving user input in the second portion of the display screen.” (Dkt. #38, Exhibit 4 at p. 185) (emphasis added).

On October 4, 2013, the Examiner amended the claims to include the language discussed above, further noting that authorization for the amendment was given by the patentee in a telephone interview held on September 27, 2013. (Dkt. #38, Exhibit 4 at p. 176). The amended claims were then subsequently issued. (Dkt. #38, Exhibit 4 at p. 204). While Plaintiff cites to this portion of the prosecution history in its brief, it ignores the “turning off touch detection sensors” language, and does not address how its construction is correct in light of this evidence. (Dkt. #38 at 22).

Plaintiff argues that its construction functionally separates the display screen from the associated sensors based upon the claims and specification. (Dkt. #38 at p. 20). Plaintiff’s construction, however, directly contradicts the representations it made to the examiner during prosecution. Plaintiff responds that there is an error in the Notice of Allowability, and that the word “is” should have been changed to “are” for grammatical correctness and consistency with its construction. (Dkt. #38 at p. 21). “A district court can correct a patent only if (1) the correction is

not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.” See e.g., *Novo Industries, L.P. v. Micro Molds Corporation*, 350 F.3d 1348, 1355 (Fed. Cir. 2003). Plaintiff has provided no facts to meet either of these requirements.

Plaintiff also argues that the specification discloses that the display screen is distinct and apart from the associated sensors. (Dkt. #38 at pp. 22–23) (citing ’427 Patent at 9:14–38). Plaintiff contends that “[t]here is absolutely no disclosure regarding powering-off touch” in its patents. (Dkt. #38 at p. 23). Again, Plaintiff’s argument directly contradicts the prosecution history and the statements made to the examiner when seeking allowance. *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003) (“The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent.”).

Plaintiff also argues that the specification mandates that the screen and sensors be separate. Notwithstanding, this does not mean that the touch sensors cannot be turned off when the screen is turned off. More importantly, the specification discusses “valuable benefits such as extending battery usage time as a result of the unused electricity saved by the dead portion of the screen. . . .” ’427 Patent at 5:3–6. The specification further indicates that the dead portion of the screen may be used “as a grip surface to securely and conveniently use applications such as the camera, etc.” *Id.* at 5:7–9. Likewise, the specification criticizes the prior art by stating that “improved hardware such as brighter display screens and faster processors drains more battery power for each minute that the multifunction device remains in use.” *Id.* at 1:37–41. These disclosures, particularly in light of the prosecution history, reinforce the notion that touch sensors are powered-off in the non-active portion to extend battery usage.

Finally, Plaintiff argues that the associated sensors must always be on to detect touch as “a portion of the display screen may be removed from the powered-on state to the powered off state in response to user input.” (Dkt. #38 at p. 24) (citing ’427 Patent at 4:57–59; ’328 Patent at 4:56–58). According to Plaintiff, Defendant’s construction “is therefore at odds with the patents, which require that user input is constantly polled (and thus, not powered-off).” (Dkt. #38 at p. 24). The Court disagrees.

The portion of the ’427 Patent and ’328 Patent cited by Plaintiff addresses the situation when a portion of the display screen is being turned from on to off. That is, the portion of the display screen that the user interacts with is on – then, in response to user input – turns off. This embodiment does not contradict Defendant’s construction because it does not speak to any requirements in the off portion (i.e., as the interaction with the display occurs when that portion is on).

The Court therefore hereby construes **“a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input”** to mean **“a second portion of the display screen and associated sensors, both of which are in a state where no power is applied and not capable of detecting a touch from the user.”**

**C. “removing the second portion from the available display area and returning the second portion to the powered-off state” and “based at least in part on whether the second portion is in a powered-on state”**

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendant’s Proposal</u>
“removing the second portion from the available display area and returning the second portion to the powered-off state”	“removing the second portion from the available display area and returning the display screen to the powered-off state while the first portion of the display screen remains on”	“removing the second portion from the available display area and returning it to the powered-off state while the first portion remains on”

“based at least in part on whether the second portion is in a powered-on state”	“determined, at least in part, on whether the second portion of the display screen is in a state in which power is applied”	“determined, at least in part, on whether the second portion is in a state in which power is applied”
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(Dkt. #51, Exhibit 2 at pp. 3–4). The parties submit that the phrase “removing the second portion from the available display area and returning the second portion to the powered-off state” appears in Claims 1, 8, and 15 of the ’328 Patent. (Dkt. #51, Exhibit 2 at p. 3). The parties submit that the phrase “based at least in part on whether the second portion is in a powered-on state” appears in Claims 2, 5, 8, 11, and 14 of the ’427 Patent, and Claims 1, 3, 5, 8, 10, 13, 15, and 17 of the ’328 Patent. (Dkt. #51, Exhibit 2 at pp. 3–4).

### **1. The Parties’ Positions**

The dispute over the phrase “removing the second portion from the available display area and returning the second portion to the powered-off state” is the same as the dispute over the phrase “a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input,” which was discussed above. Moreover, the parties agree that the dispute over the phrase “based at least in part on whether the second portion is in a powered-on state” is also the same. (Dkt. #38 at p. 29; Dkt. #39 at p. 38). During the Claim Construction Hearing, the parties confirmed that these phrases should generally be construed consistent with one another. As with the previous phrase, the parties dispute whether the “second portion” should apply only to the display screen, as Plaintiff contends, or whether the second portion also includes the “associated sensors,” as Defendant contends.

Plaintiff argues that a person of ordinary skill in the art at the time of the invention would have understood that the bright display screen “drains more battery power,” as would any smartphone user. (Dkt. #38 at p. 28) (citing ’427 Patent at 1:37–40). Plaintiff contends that the entire premise of the claimed inventions is reducing the battery drain of a display by powering-off

a portion of the display. (Dkt. #38 at p. 29). Plaintiff argues that the “sensor state, including information obtained from the device’s various sensors and input control devices 116” are part of the “[d]evice/global internal state 157” which is never described as being powered off in whole or part, unlike the display. (Dkt. #38 at p. 29) (citing ’427 Patent at 10:53–59; 4:57–59; ’328 Patent at 10:53–59, 4:56–58).

Defendant responds that the antecedent basis for the claimed “second portion” includes both the display screen and associated sensors. (Dkt. #39 at p. 36) (citing ’328 Patent at Claim 1). Defendant argues that Plaintiff does not address the way the other elements in the claims use the term “the second portion” to refer to both the part of the display and associated sensors. (Dkt. #39 at p. 37). Defendant contends that the first use of the term “a second portion” the claim recites both the display screen and the associated sensors. (Dkt. #39 at p. 37) (citing ’328 Patent at Claim 1, 28:54–56). Defendant further contends that when the term “the second portion” is used later, the display screen and associated sensors are not mentioned. (Dkt. #39 at p. 37) (citing ’328 Patent at 29:57–60).

Plaintiff did not include arguments for these phrases in its Reply Brief.

## **2. Analysis**

The Court agrees with the parties that these phrases should be construed consistent with the construction for the disputed phrase “a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input.” The disputed phrase “removing the second portion from the available display area and returning the second portion to the powered-off state” appears in claims 1, 8, and 15. The claim language indicates that the claimed “second portion” includes both the display screen and associated sensors. For example, the relevant language of claim 1 of the ’328 Patent recites the following:

**a second portion of the display screen and associated sensors**, which is configured in a powered-off state and incapable of receiving user input;

responsive to a user indication in the in the first portion, adding **the second portion** to the available display area by transitioning **the second portion** to the powered on state to perform display functions and receive user input;

displaying second information in **the second portion**;

receiving a graphical content data structure comprising content for display in the available display area;

selecting elements of the graphical content data structure for display in the available display area based at least in part on whether **the second portion** is in a powered-on state; and

responsive to a system event, removing **the second portion** from the available display area and returning **the second portion** to the powered-off state . . .

'328 Patent at claim 1 (emphasis added, term at issue italicized). As indicated above, the first use of the term “a second portion” recites both the display screen and the associated sensors. When the term “the second portion” is used later, the display screen and associated sensors are not mentioned. This indicates that the patentee intended the “second portion” to include both the display screen and associated sensors, and therefore they are not repeated. '328 Patent at 28:57–60 (“transitioning the second portion to the powered-on state to perform display functions and receive user input”).

Defendant argues that this is analogous to the issue in *Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776 (Fed. Cir. 2010). The Court agrees. The term at issue in *Haemonetics* was “centrifugal unit.” The claim’s preamble stated that the “centrifugal unit” comprised “a centrifugal component and a plurality of tubes.” Later in the claim, the “centrifugal unit” was recited, but the claim did not mention either the “centrifugal component” or the “plurality of tubes.” The district court construed “centrifugal unit” to not include the “plurality of tubes,” similar to Plaintiff’s argument here that “the second portion” does not include “associated

sensors.” The Federal Circuit reversed and held that the construction for “centrifugal unit” must include both the “centrifugal component” and the “plurality of tubes” since it was required by the antecedent basis for that term. *Id.* at 781-82 (“In this case, claim 16’s beginning and, in our view, controlling language could hardly be clearer. Claim 16 states: ‘A centrifugal unit comprising a centrifugal component and a plurality of tubes’ . . . The claim then further recites, not the centrifugal component and not a centrifugal unit, but ‘the centrifugal unit’”). Accordingly, the Court adopts Defendant’s construction for these terms.

Plaintiff contends that the entire premise of the claimed inventions is reducing the battery drain of a display by powering-off a portion of the display. (Dkt. #38 at p. 29). Plaintiff argues that the “[d]evice/global internal state 157” is never described as being powered off in whole or part, unlike the display. (Dkt. #38 at p. 29). The problem with Plaintiff’s argument is that it does not address the actual claim language. Specifically, Plaintiff does not address the antecedent basis issue for “the second portion,” and does not address the way the other elements in the claims use the term “the second portion” to refer to both the part of the display and associated sensors. Finally, the Court notes that the parties agree that the “first portion” remains on while a “second portion” is returned to a powered-off state.

The Court therefore hereby construes **“removing the second portion from the available display area and returning the second portion to the powered-off state”** to mean **“removing the second portion from the available display area and returning it to the powered-off state while the first portion remains on.”** The Court further construes **“based at least in part on whether the second portion is in a powered-on state”** to mean **“determined, at least in part, on whether the second portion is in a state in which power is applied.”**

**D. “incapable of receiving user input”**

<u>Disputed Term</u>	<u>Plaintiff's Proposal</u>	<u>Defendant's Proposal</u>
"incapable of receiving user input"	"unresponsive to user input"	"not capable of detecting a touch from the user"

(Dkt. #51, Exhibit 2 at p. 3). The parties submit that the phrase appears in Claims 1, 7, and 13 of the '427 Patent, and Claims 1, 8, and 15 of the '328 Patent. (Dkt. #51, Exhibit 2 at p. 3).

### **1. The Parties' Positions**

The parties dispute whether the term "incapable of receiving user input" should be construed consistently with its use in the larger disputed limitation, as Defendant contends, or whether the phrase should be construed to mean "unresponsive to user input," as Plaintiff contends. Plaintiff argues that its construction is "like" the phrase "not used to detect a touch from the user," which was a part of its construction for the previous limitation. (Dkt. #38 at p. 25). According to Plaintiff, a person of ordinary skill in the art would understand that the limitation "incapable of receiving user input" means "unresponsive to user input." (Dkt. #38 at p. 25) (citing Dkt. #38, Exhibit 9 at 301:19–302:15, 291:2–8). Plaintiff further argues that the associated sensors must always be on to detect touch as "a portion of the display screen may be removed from the powered-on state to the powered off state in response to user input." (Dkt. #38 at p. 25) (citing '427 Patent at 4:57–59; '328 Patent at 4:56–58).

Defendant responds that the term "incapable of receiving user input," only occurs within the larger disputed limitation, and is not found in the specification. (Dkt. #39 at p. 30). Defendant argues that Plaintiff's constructions are incompatible with the plain and ordinary meaning. (Dkt. #39 at p. 31). According to Defendant, being capable of detecting a user's touch input but ignoring or not responding to the detected touch input is the opposite of being "incapable of receiving user input," as recited in the claims. (Dkt. #39 at p. 31). Defendant argues that Plaintiff fails to explain how something that is "incapable of receiving user input" can "collect" the user



input that the claim requires it be “incapable of receiving.” (Dkt. #39 at p. 31).

Plaintiff did not include arguments for this phrase in its Reply Brief.

## **2. Analysis**

The term “incapable of receiving user input” only appears within the disputed phrase “a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input.” The term does not appear in the specification and is only recited in the claims. Accordingly, the Court finds that the term should be construed exactly the same as construed in the phrase “a second portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input.” *PODS, Inc. v. Porta Stor, Inc.*, 484 F.3d 1359, 1366 (Fed. Cir. 2007) (“We apply a ‘presumption that the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims.’”) (internal citation omitted).

Turning to Plaintiff’s construction, the Court rejects it because it would allow the “second portion of the display screen and associated sensors” to be capable of detecting a user’s input, and at the same time ignore or be nonresponsive to what was detected. The disputed phrase is “incapable of receiving user input.” Being capable of detecting a user’s touch input is the exact opposite of this language. Neither Plaintiff nor its expert explain how something that is “incapable of receiving user input” can “collect” the user input that it must be “incapable of receiving.”

Plaintiff argues that other claim language, namely “responsive to a user indication in the first portion,” supports its construction. (Dkt. #38 at p. 25). This language, however, refers to user indications in the recited “first portion,” the portion that is on. The phrase at issue relates to user input in the recited “second portion,” the portion that is “incapable of receiving user input.”

Likewise, Plaintiff’s citation to ’427 Patent at 4:47–59 (and the identical disclosure in the ’328 Patent) is inapplicable. As discussed above, this excerpt deals with turning a portion of the display from on to off – where the user input is made while that portion is on. See ’427 Patent at 4:47–59.

Finally, Plaintiff’s expert asserts that it is “well-established principles in the field of human-computer interaction hold that, in any valid interaction, a device must provide user-perceivable feedback in response to user input.” (Dkt. #38 at p. 25). Plaintiff has not explained why this is relevant. While Mr. Grant’s summary speaks to the meaning of “user input,” and the quoted encyclopedia uses the word “input,” neither address the meaning or even use the phrase “incapable of receiving user input,” the actual language in dispute.

The Court therefore hereby construes “**incapable of receiving user input**” to mean “**not capable of detecting a touch from the user.**”

**E. “graphical content data structure”**

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendant’s Proposal</u>
“graphical content data structure”	<p>“means for storing electronic data that represents various visual elements of a software application that can be displayed on a display screen (e.g. application icons and application screens)”</p> <p>[35 USC 112(f) – the graphical content data structure includes content for display in the available display area and is stored within graphics module 132]</p>	<p>Not subject to 35 U.S.C. § 112(f)</p> <p>“an organized collection of graphics data”</p> <p>Alternatively: indefinite</p>

(Dkt. #51, Exhibit 2 at p. 3). The parties submit that the term appears in Claims 2, 5, 8, 11, and 14 of the ’427 Patent, and Claims 1, 3, 5, 8, 10, 13, 15, and 17 of the ’328 Patent. (Dkt. #51, Exhibit 2 at p. 3).

## 1. The Parties' Positions

The parties appear to dispute whether the term “graphical content data structure” should be construed as a means-plus-function term, as Plaintiff contends. The parties also appear dispute the proper construction for the term. However, at the Claim Construction Hearing Plaintiff stated that it fundamentally does not disagree with Defendant regarding this term (i.e., that it should not be subject to 35 U.S.C. § 112(f)). In its briefing, however, Plaintiff argues that the term itself references a structure. (Dkt. #38 at p. 26). Plaintiff contends that the specification describes that the graphical content data structure stores elements, including content for display in the available display area. (Dkt. #38 at p. 26) (citing ’427 Patent at 5:22–27, 5:39–45, 17:60–67, 18:39–45; ’328 Patent at 5:21–26, 5:38–44, 17:58–65, 18:35–43). Plaintiff also contends that graphics module 132 is described, in some embodiments, as “stor[ing] data representing graphics to be used.” (Dkt. #38 at p. 27) (citing ’427 Patent at 11:54–60). According to Plaintiff, the data stored within graphics module 132 is plainly the “graphical content data structure.” (Dkt. #38 at p. 28).

Defendant responds that its alternative argument regarding indefiniteness applies only if the term is construed as a means-plus-function element under 35 U.S.C. § 112(f). (Dkt. #39 at p. 33). Thus, Defendant’s primary argument is that Section 112(f) does not apply because the term does not recite any functionality. (Dkt. #39 at p. 34). Defendant argues that a person of ordinary skill in the art would understand that “graphical content data structure” refers to a data structure that is used to organize graphical content. (Dkt. #39 at p. 35) (citing Dkt. #39, Exhibit 6 at ¶ 66).

Plaintiff replies that Defendant’s construction of graphical content data structure is flawed because a “data structure” is more than an “organized collection of data.” (Dkt. #45 at p. 6). Plaintiff contends that Defendant ignores that its construction includes a function. (Dkt. #45 at p. 6). Plaintiff also argues that Defendant did not address the type of unique data that is being stored. (Dkt. #45 at p. 6).

## 2. Analysis

The Court finds that the term should not be construed under 35 U.S.C. § 112(f). There is a presumption that claim terms without the word “means” are not construed under Section 112(f). *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015). The presumption is rebuttable, but must be established by a preponderance of the evidence. *Advanced Ground Info. Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1347 (Fed. Cir. 2016). Here, Plaintiff has failed to overcome the presumption.

Specifically, Section 112(f) does not apply because the term does not recite any functionality, which is a statutory requirement for a means-plus-function limitation. *Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 324 F.3d 1308, 1318 (Fed. Cir. 2003) (“A means-plus-function limitation recites a function to be performed rather than definite structure or materials for performing that function.”). Claim 2 of the ’427 Patent, which is representative of the issue, reads as follows:

2. The method of claim 1, further comprising:

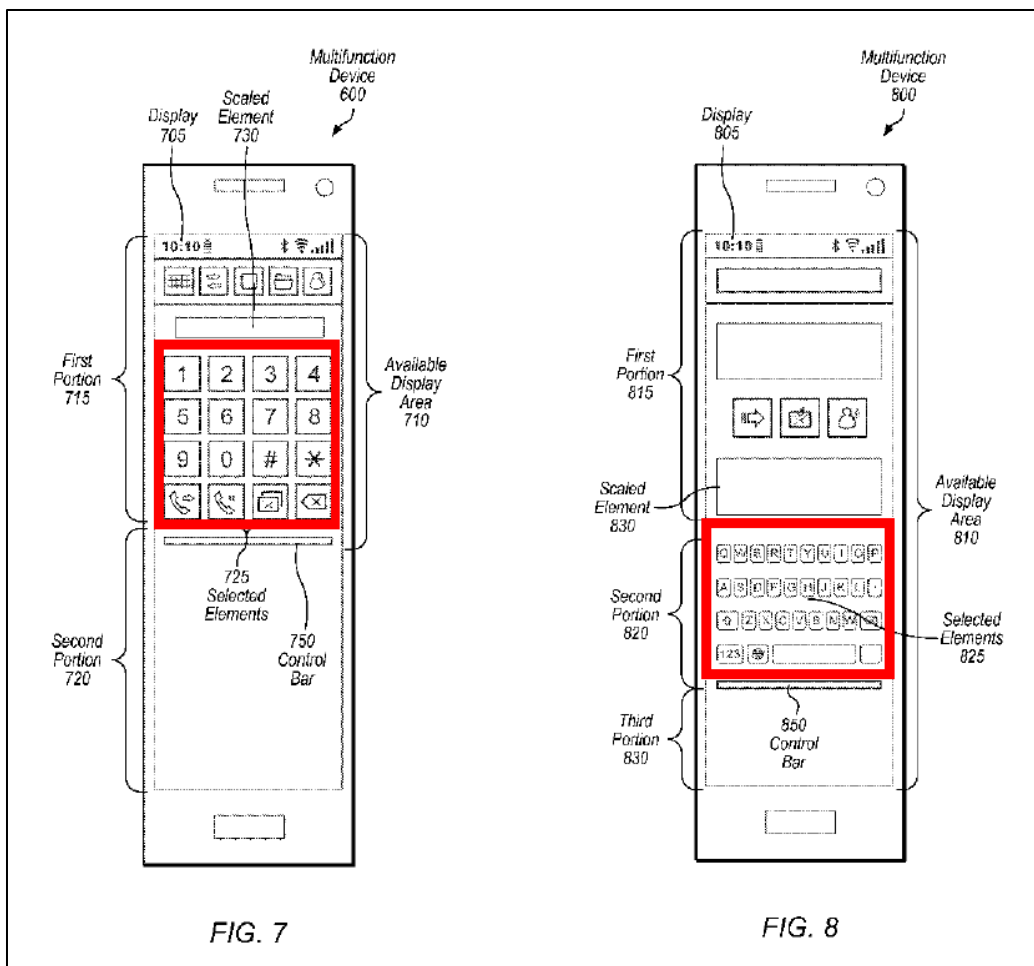
receiving a graphical content data structure comprising content for display in the available display area; and

selecting elements of the graphical content data structure for display in the available display area based at least in part on whether the second portion is in a powered-on state.

’427 Patent at Claim 2 (emphasis added). As indicated, the recited “graphical content data structure” in claim 2 is a noun contained within the method steps of the claim, and no functionality is recited. Indeed, Plaintiff admits that “the term itself references a structure.” (Dkt. #38 at p. 26). See *Williamson*, 792 F.3d at 1349 (stating that means-plus-function does not apply if “the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.”). Accordingly, the Court finds that Plaintiff has not overcome

the presumption, and that the term is not subject to 35 U.S.C. § 112(f).

Having determined that the term is not subject to 35 U.S.C. § 112(f), the Court turns to the intrinsic evidence to determine the proper construction. The term “graphical content data structure” is not explicitly defined in the specification. However, the specification does provide insight on how a person of ordinary skill in the art would understand the term. Specifically, the specification states that “[i]n some embodiments, a graphical content data structure including content for display in the available display area is received, and elements of the graphical content data structure are selected for display in the available display area based at least in part on whether the second portion is in a powered-on state.” ’427 Patent at 5:22–27. Specific examples of display elements include “a foreground content element” (’427 Patent at 5:39–45; ’328 Patent at 5:38–44), and selected interface elements 725, a dial-pad and icons, and 825, a keyboard, (’427 Patent at 17:60–67, 18:39–45; ’328 Patent at 17:58–65, 18:35–43), as shown in the red boxes in the figures below:



'427 Patent at Figures 7 & 8 (annotated). Thus, the specification indicates that “graphical content data structure” is a “structure containing elements for display.” During the Claim Construction Hearing, the parties agreed that the data structure would be an organized collection. Because the parties agree with this portion of Defendant’s construction, the Court will incorporate “organized collection” into the construction for this term.

Turning to Defendant’s construction, the Court does not adopt Defendant’s construction because it based entirely on extrinsic evidence with no intrinsic support. Moreover, Defendant’s construction removes the term “structure” from the claims entirely. Accordingly, the Court does not adopt Defendant’s construction.

The Court therefore hereby construes **“graphical content data structure”** to mean

**“structure containing an organized collection of elements for display.”**

**F. “unlock image”**

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendant’s Proposal</u>
“unlock image”	“a graphical, interactive user interface screen with which the user interacts to unlock the device”	“graphical image on the display that may be used to unlock the device””

(Dkt. #51, Exhibit 2 at p. 4). The parties submit that the term appears in Claims 10 and 14 of the ’612 Patent. (Dkt. #51, Exhibit 2 at p. 4).

**1. The Parties’ Positions**

The parties dispute whether the term “image” requires construction. Plaintiff argues that the term’s context in unasserted claim 9 is important to determining the claim’s meaning. (Dkt. #38 at p. 30). Plaintiff further argues that the proper construction should align with the definition provided in the patent and prosecution history of “a graphical, interactive user-interface screen with which the user interacts to unlock the device.” (Dkt. #38 at p. 30).

Defendant responds that an “object” and a “screen” are very different. (Dkt. #39 at p. 39). Defendant argues that Figure 35 illustrates an “unlock image 3550” displayed on a screen. (Dkt. #39 at p. 39–40). Defendant contends that the distinction between an unlock image/object and the screen is repeated again and again in the specification. (Dkt. #39 at p. 40) (citing ’612 Patent at 29:64–30:4). Defendant also contends that claim 9 indicates that the screen is different from an object because it describes the ability to “continuously move the unlock image” across the display by continuous contact with the screen. (Dkt. #39 at p. 40).

Defendant further argues that there is no evidence in the specification or elsewhere that the patentees intended the “unlock image” of other claims to contain all of the limitations recited in claim 9. (Dkt. #39 at p. 42). Defendant also contends that Plaintiff’s construction is inconsistent

with the specification, because it does not state or imply that an “unlock image” is a screen. (Dkt. #39 at p. 42) (citing ’612 Patent at 29:64–65). Defendant next argues that Plaintiff’s construction is also inconsistent with the prosecution history. (Dkt. #39 at 42) (citing Dkt. #38, Exhibit 6 at pp. 72, 74–75, 249–50, 252–55). Defendant contends that the patentees amended claims 1, 10, and 14 to introduce the “unlock image,” but did not amend those claims to include any of the limitations regarding the unlock image recited in claim 9. (Dkt. #39 at p. 42).

Defendant further argues that the specification indicates that the “unlock image” is an “image on the display that may be used to unlock the device.” (Dkt. #39 at p. 43) (citing ’612 Patent at 29:64–65, 29:57–30:38). Defendant also contends that its construction is consistent with other prior art references that were cited during prosecution. (Dkt. #39 at p. 43) (citing Dkt. #39, Exhibit 19; Dkt. #38, Exhibit 6 at p. 282–84). Finally, Defendant argues that its construction is consistent with how a person of ordinary skill in the art would interpret the phrase “unlock image.” (Dkt. #39 at p. 44) (citing Dkt. #39, Exhibit 6 at ¶¶ 68-73).

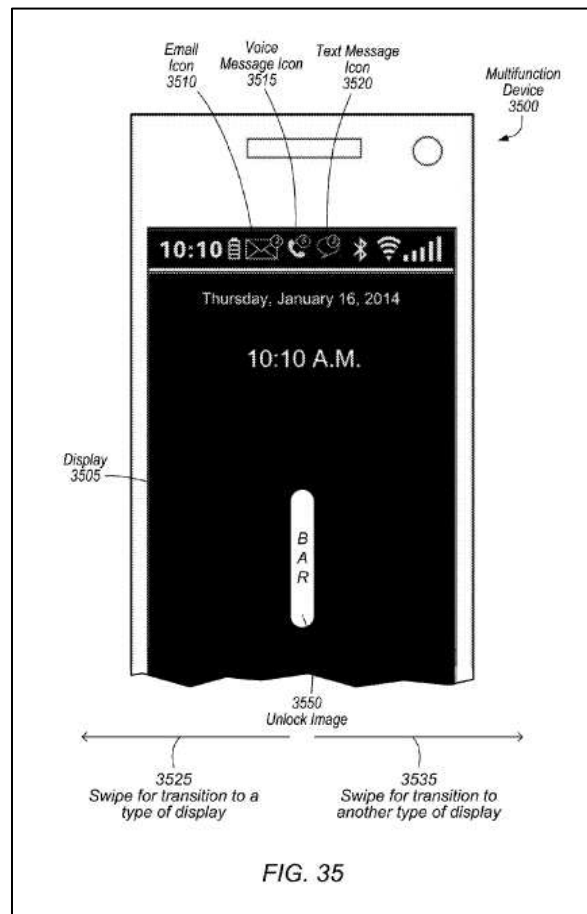
## **2. Analysis**

The Court finds that the term “unlock image” is unambiguous, is easily understandable by a jury, and should be given its plain and ordinary meaning. Specifically, the surrounding claim language provides context for the term “unlock image,” and indicates how a person of ordinary skill in the art would interpret the term. For example, claim 10 of the ’612 Patent recites that the portable phone includes a display, and that the “power management module” directs the display to display a subset of a plurality of graphical indications. Claim 10 further recites that the subset comprises an “unlock image” that may be to used transition the portable phone to an unlocked state based upon receiving a unlock gesture from the user. This claim language is easily understandable by a jury. Indeed, the parties’ constructions repeat that the unlock image is used



to unlock the device.

Defendant contends that “[t]he distinction between an unlock image/object and the screen is repeated again and again in the specification.” (Dkt. #39 at p. 40) (citing ’612 Patent at 29:64–30:4). The Court agrees that the specification indicates that the “unlock image may be displayed via the screen while the screen/device is in the lock state.” ’612 Patent at 29:64–30:4. An embodiment of the “unlock image” is illustrated in Figure 35 as item 3550.



’612 Patent at Figure 35. However, Figure 35 is only one embodiment, and to the extent that Defendant is attempting to limit the claims to this embodiment, the Court rejects Defendant’s construction.

It is well established that an inventor need not “embrace in the claims or describe in the specifications all possible forms in which the claimed principle may be reduced to practice.” Smith

v. Snow, 294 U.S. 1, 11 (1935); Nazomi Comm., Inc. v. Arm Holdings, PLC, 403 F.3d 1364, 1369 (Fed.Cir.2005) (stating that claims may embrace a “different subject matter than is illustrated in the specific embodiments in the specification”). Moreover, “the mere fact that the specification drawings depict a particular embodiment of the patent does not operate to limit the claims to that specific configuration.” Anchor Wall Systems, Inc. v. Rockwood Retaining Walls, Inc., 340 F.3d 1298, 1306-07 (Fed. Cir. 2003). To the extent that Defendant contends that the “image” cannot be the size of the entire display (i.e., the screen), the Court rejects this argument. As discussed above, the claims recite that the “unlock image” may be used to transition the phone from the locked state to an unlocked state. This may be done with a number of different images and is not limited to the one illustrated in Figure 35.

Defendant argues that dependent claim 9 does not make sense if the “unlock image” is the screen. The Court disagrees. Defendant is attempting to read a size limitation into the claims that is not warranted or required. Moreover, claim 9 is a dependent claim, and is not asserted in this case. To the extent that claim 9 implies a size requirement, it would be a further limitation of a dependent claim that should not be read into the independent claims.

Plaintiff contends that the term “unlock image” should “be defined almost exactly the way it appears in claim 9.” The Court rejects Plaintiff’s construction for two reasons. First, as discussed, claim 9 is a dependent claim. The intrinsic evidence does not indicate that the patentees intended the “unlock image” of other claims to contain all of the limitations recited in claim 9. Indeed, the fact that the patentees choose to place the specific limitations recited in claim 9 in a dependent claim presumptively means that those limitations do not apply to the recitations in the independent claims. Retractable Techs. v. New Med. Techs., No. 4:02-CV-34, 2004 WL 435054, at \*15 (E.D. Tex. Mar. 3, 2004) (“The Court rejects NMT’s attempt to import limitations from

dependent claims into independent claims.”) (citing *Sunrace Roots Enter. Co., LTD. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003)).

Second, Plaintiff has failed to provide a persuasive reason to redraft the term “image” as “screen.” There is no reason to replace the clear and unambiguous word “image.” As indicated above, the Court agrees that an “image” can be displayed on an entire screen, but that does not make an “image” a physical “screen.” Moreover, the term in claim 9 that Plaintiff is relying on to support its construction is “object.” An “object” displayed on a “screen” is different than the physical screen itself. Accordingly, having resolved the parties’ dispute, the Court finds that no further construction is necessary. See *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); see also *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”).

The Court therefore hereby construes **“unlock image”** to have its **plain meaning**.

### CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

**SIGNED this 16th day of March, 2020.**

*Amos Mazzant*

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AMOS L. MAZZANT  
UNITED STATES DISTRICT JUDGE