

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

IMAGE PROCESSING	§	
TECHNOLOGIES, LLC,	§	
	§	
<i>Plaintiff,</i>	§	
	§	CASE NO. 2:16-CV-505
v.	§	
	§	
SAMSUNG ELECTRONICS CO., LTD.;	§	
SAMSUNG ELECTRONICS AMERICA,	§	
INC.	§	
	§	
<i>Defendants.</i>	§	

MEMORANDUM OPINION AND ORDER

Before the Court is the opening claim construction brief of Plaintiff Image Processing Technologies, LLC (“Plaintiff”) (Dkt. No. 133, filed on April 14, 2017), the response of Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (“Defendant”) (Dkt. No. 138, filed on April 28, 2017), and the reply of Plaintiff (Dkt. No. 148, filed on May 5, 2017). The Court held a claim construction hearing on June 2, 2017. Having considered the arguments and evidence presented by the parties at the hearing and in their claim construction briefing, the Court issues this Claim Construction Order.

Exhibit 2006
IPR2017-00353
Petitioner- Samsung Electronics Co., Ltd., et al.
Patent Owner- Image Processing Technologies LLC

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Overall, the Court agrees with the construction and arguments advanced by the Defendant. The Court rejects Plaintiff's argument that Defendant's construction would render the term "plurality" superfluous. The Court rejects Plaintiff's attempt to change the claim language from "one or more of the plurality of classes" to "at least two classes." The Court finds that Defendant's construction gives effect to all the words of the disputed claim term.

The Court hereby construes "forming at least one histogram of the pixels in the one or more of a plurality of classes in the one or more of a plurality of domains" to mean "**forming at least one histogram of the pixels in at least one class selected from multiple classes in at least one of multiple domains.**"

H. "said at least one histogram referring to classes defining said target"

<u>Plaintiff's Proposed Construction</u>	<u>Defendant's Proposed Construction</u>
"at least one histogram being formed of pixels in at least two classes that define said target"	"the at least one 'histogram' includes data values for pixels meeting classification criteria matching characteristics of the target"

The disputed term "said at least one histogram referring to classes defining said target" appears in at least claims 1 and 8 of the '001 patent, claim 6 of the '015 patent, and claim 1 of the '134 patent.

(1) The Parties' Positions

Plaintiff argues that the dispute is whether this phrase requires "two or more classes." *See, e.g.,* Dkt. No. 133, Plaintiff's Opening Claim Construction Brief, at page 22. Plaintiff argues that "classes" is a plural term and clearly requires at least two classes. *Id.* Defendant's construction would read out the requirement for multiple classes. *Id.*

Defendant argues that the specification never uses or explains the phrase “referring to classes” or “defining the target.” *See, e.g.*, Dkt. No. 138, Defendant’s Responsive Claim Construction Brief, at page 22. Defendant argues that the specification teaches that an object in an image may be tracked based upon its characteristics. *Id.* Defendant argues that Plaintiff’s construction would exclude preferred embodiment and does not define the phrase “define the target.” *Id.*

In its Reply, Plaintiff argues that the phrase “classes” requires Plaintiff’s construction. *See, e.g.*, Dkt. No. 148, Plaintiff’s Reply Claim Construction Brief, at page 9. Plaintiff also argues that its construction is supported by Figure 11 in the specification. *Id.*

(2) Analysis

The parties dispute the embedded phrases “referring to classes” and “defining said target” of the disputed term. As a representative example, claim 1 of the ’134 patent is recited below in its entirety:

A process of tracking a target in an input signal implemented using a system comprising an image processing system, the input signal comprising a succession of frames, each frame comprising a succession of pixels, the target comprising pixels in one or more of a plurality of classes in one or more of a plurality of domains, the process performed by said system comprising, on a frame-by-frame basis:

forming at least one histogram of the pixels in the one or more of a plurality of classes in the one or more of a plurality of domains, **said at least one histogram referring to classes defining said target; and**

identifying the target in said at least one histogram itself,

wherein forming the at least one histogram further comprises determining X minima and maxima and Y minima and maxima of boundaries of the target.

(emphasis added). Other claims that contain the disputed term are similar. The language of the claim recites that the target comprises “pixels in one or more of a plurality of classes in one or

more of a plurality of domains.” The claim language further requires forming at least one histogram of “the” pixels in “the” one or more of a plurality of classes in “the” one or more of a plurality of domains. The disputed claim language then simply requires the at least one histogram to refer to the previously claimed classes. In other words, the “classes” recited in the disputed term are simply those “one or more classes” previously recited.

The parties focus largely on the claim language and little on the specification. Overall, the Court finds that the parties’ citations and/or arguments relating to the specification are not particularly helpful.

The Court rejects Plaintiff’s attempt to change the claim language from “one or more of the plurality of classes” to “at least two classes.” While the “classes” term is recited is plural, that does not require “at least two” classes as suggested by the Plaintiff. Rather, it is merely a reference to the previously recited “plurality of classes,” and it is clear that the claim language only requires the target and histogram to be formed of “one or more” of the plurality of classes, as required by the claim language and as determined by the Court from the prior disputed term “forming ...” as detailed in section G above.

The Court also rejects Defendant’s construction. The Court is not convinced that the phrase “referring to classes defining said target” requires “including data values for pixels meeting classification criteria matching characteristics of the target.” Defendant’s construction is not supported by the claim language, and the Court is not convinced that Defendant’s construction is warranted, much less required by the specification or the claims.

Consistent with the Plaintiff’s construction, the Court finds that the “referring” word simply means that the histogram is formed of pixels. The Court finds that the remaining phrase “defining said target” does not need a construction. This is a phrase that is easily understood by

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