UNITED STATES PATENT AND	TRADEMARK OFFICE
BEFORE THE PATENT TRIAL A	ND APPEAL BOARD
SAMSUNG ELECTRONICS SAMSUNG ELECTRONICS Petitioner	· · · · · · · · · · · · · · · · · · ·

V.

IMAGE PROCESSING TECHNOLOGIES LLC, Patent Owner

CASE IPR2017-01190 Patent No. 6,717,518

IMAGE PROCESSING TECHNOLOGIES LLC'S PATENT OWNER RESPONSE PURSUANT TO 37 C.F.R. § 42.120



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		1. Neither Reference Teaches or Suggests a "Histogram"	.45
		2. Eriksson in Combination with Stringa Does Not Teach or Suggest a Histogram "of the Selected Pixels".	.48
	B.	A POSA Would Not Have Selected and Combined Eriksson and Stringa in the Manner Proposed by Petitioner to Achieve the Claimed Invention.	.52
	C.	Ando (Exhibit 1009) in View of Suenaga (Exhibit 1007) Does Not Teach or Suggest All Elements of Claim 39.	.57
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### TABLE OF AUTHORITIES

#### **Cases**

Apple Inc. v. Contentguard Holdings, Inc., IPR2015-00442, Paper 9 (P.T.A.B. July 13, 2015)	41, 43, 44
Google, Inc. v. Everymd.com LLC, IPR2014-00347, Paper 9 (P.T.A.B. May 22, 2014)	42
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In re Omeprazole Patent Litigation, 536 F.3d 1361 (Fed. Cir. 2008)	45
InTouch Tech., Inc. v. VGo Communs., Inc., 751 F.3d 1327 (Fed. Cir. 2014)	45
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KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007)	44, 45, 46
Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co., CBM-2012-00003, Paper 7 (P.T.A.B. Nov. 26, 2012)	42, 43
Ortho-McNeil Pharm. v. Mylan Labs, 520 F.3d 1358 (Fed. Cir. 2008)	45
Proctor & Gamble Co. v. Teva Pharm. USA, Inc., 566 F.3d 989 (Fed. Cir. 2009)	43, 44
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Unigene Labs., Inc. v. Apotex, Inc., 655 F.3d 1352 (Fed. Cir. 2011)	44, 45
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