

The opinion in support of the decision being entered today was not written for publication journal and is not precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte YASUSHI KUSAKA

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Appeal No. 1998-1901  
Application 08/506,804

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ON BRIEF

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Before JERRY SMITH, RUGGIERO and BARRY, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1, 2, 4, 5, 7-10, 12-14, 16, 17 and 19-25. Claims 3, 6, 11, 15 and 18 have been indicated to contain allowable subject matter. A first amendment after final rejection was filed on August 21, 1997 and was denied entry

by the examiner. A second amendment after final rejection was filed on September 23, 1997 and was entered by the examiner.

The disclosed invention pertains to the field of image sensing devices. More particularly, the invention converts a photoelectric signal indicative of incident light into an analog signal which is logarithmically proportional to the photoelectric signal. The analog signal is further adjusted before being converted to a digital signal. This technique is described as improving white balance correction of image signals.

Representative claim 1 is reproduced as follows:

1. An image sensing device comprising:

a photoelectric signal generator which is sensitive to an incident light and which generates a photoelectric signal proportional to an intensity of the incident light;

a converter which is connected with said photoelectric signal generator to receive the photoelectric signal and to generate a first analog signal which is logarithmically proportional to the photoelectric signal;

a signal adjusting device which is connected with said converter to receive the first analog signal and to adjust a direct-current component of the first analog signal in order to generate a second analog signal; and

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an A/D converter which is connected with said signal adjusting device to generate a digital signal based on said second analog signal.

The examiner relies on the following references:

Cadet et al. (Cadet)	5,138,149	Aug. 11, 1992
Miyatake et al. (Miyatake)	5,241,575	Aug. 31, 1993

The following rejections are before us on appeal:

1. Claim 14 stands rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

2. Claims 1 and 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Cadet.

3. Claims 2, 4, 5, 7, 16, 17, 19-22, 24 and 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Cadet in view of well known prior art.

4. Claims 8 and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Cadet in view of Miyatake.

5. Claims 9, 10, 12 and 13 stand rejected under 35 U.S.C.

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§ 103 as being unpatentable over the teachings of Miyatake in view of Cadet.

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answer for the respective details thereof.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the prior art rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that claim 14 is in compliance with the second paragraph of 35 U.S.C. § 112. We are also of the view that none of the claims on appeal is properly rejected based on the

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applied prior art. Accordingly, we reverse.

We consider first the rejection of claim 14 under the second paragraph of 35 U.S.C. § 112. The examiner observes that if the first through fourth steps are repeated, then the process will be ongoing and never render a final output result [answer, page 5]. Appellant responds that the repeating step is not repeated so that the method ends after nine steps are performed

[brief, pages 10-11]. The examiner responds that the repetition of the first through fourth steps creates two "photoelectric signals," two "first analog signals," two "second analog signals" and two "digital signals," which renders the claim indefinite [answer, pages 18-19]. Appellant responds that there is only one signal present at the time each of the first through fourth steps is performed [reply brief, page 7].

The general rule is that a claim must set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the

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disclosure as it would be by the artisan. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co., v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984).

We will not repeat what is already argued in detail in appellant's briefs because we completely agree with the position argued by appellant. We agree with appellant that the artisan

having considered the specification of this application would have no difficulty ascertaining the scope of the invention recited in claim 14. Therefore, the rejection of claim 14 under the second paragraph of 35 U.S.C. § 112 is not sustained.

We now consider the rejection of claims 1 and 14 under 35 U.S.C. § 102(b) as being anticipated by the disclosure of

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Cadet. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

Each of claims 1 and 14 recites a device or step of generating "a first analog signal which is logarithmically proportional to the photoelectric signal." Appellant argues that there is no logarithmic conversion disclosed in Cadet. The examiner argues that the output of photodiode 2 is inherently a logarithmic function of the input, or current to voltage

converter 5 has a logarithmic response, or phase sensitive detector 6 achieves a logarithmic response by selection of the gain of programmable gain amplifier 22.

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Once again, rather than burden this record, we simply refer to appellant's briefs. Each of the examiner's positions is without merit for the reasons identified and explained by appellant. Therefore, we do not sustain the rejection of claims 1 and 14 as anticipated by Cadet.

The rejection of claims 2, 4, 5, 7, 8, 16, 17 and 19-25 under 35 U.S.C. § 103 fundamentally relies on the examiner's incorrect understanding of the disclosure of Cadet. Since Cadet does not disclose that which the examiner attributes to it, the examiner has failed to establish a prima facie case of the obviousness of these claims. Miyatake does not overcome the deficiencies of Cadet as applied to claims 8 and 23. Therefore, we do not sustain the rejection of these claims under 35 U.S.C. § 103.

The rejection of claims 9, 10, 12 and 13 under 35 U.S.C. § 103 is based on Miyatake as the primary reference in view of Cadet. We agree with appellant that the examiner has provided no reasonable motivation to combine the teachings of Miyatake with the teachings of Cadet, and the examiner has not demonstrated how such a substitution would result in the

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claimed invention anyway. Therefore, we do not sustain the examiner's rejection of claims 9, 10, 12 and 13.

In summary, we have not sustained any of the examiner's rejections of the claims on appeal. Accordingly, the decision of the examiner rejecting claims 1, 2, 4, 5, 7-10, 12-14, 16, 17 and 19-25 is reversed.

REVERSED

JERRY SMITH	)	
Administrative Patent Judge	)	
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	)	
JOSEPH F. RUGGIERO	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
LANCE LEONARD BARRY	)	)
Administrative Patent Judge	)	

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