

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

Paper No. 58 (90,003,621)

Paper No. 54 (08/274,748)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte INTERNATIONAL RECTIFIER CORPORATION
and
ALEXANDER LIDOW, THOMAS HERMAN and VLADIMIR RUMENNIK

Appeal No. 2000-0854
Control No. 90/003,621¹
Application No. 08/274,748²

ON BRIEF

¹ Request filed November 04, 1994, Control Number 90/003,621, by International Rectifier Corp for the Reexamination of Lidow et al Patent No. 5,130,767, issued July 14, 1992, based on application Serial No. 07/653,017, filed February 8, 1991.

² Application filed July 14, 1994, Serial No. 08/274,748 for the Reissue of Patent No. 5,130,767, based on application 07/653,017, filed February 8, 1991, granted July 14, 1992, which is a continuation of Application 07/291,423, filed February 23, 1988, now U.S. Patent No. 5,008,725, issued April 16, 1991, which is a continuation of Application 06/243,544, filed March 13, 1981, now abandoned, which is a continuation of Application 06/038,662, filed May 14, 1979, now abandoned.

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Before JERRY SMITH, FLEMING and LEE, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the merged appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-39 in the reexamination proceeding involving U. S. Patent No. 5,130,767 issued to Lidow et al. (Lidow '767) based on Reexamination Request number 90/003,621 filed November 4, 1994 and the reissue application (08/274,748) seeking the reissue of Lidow '767 filed on July 14, 1994. The original patent contained claims 1-8. Claims 1-8 of the patent have been amended, and claims 9-39 were added as part of the reissue request and during the course of the examination and reexamination proceedings. This decision constitutes a decision which is common to both the reexamination proceeding and the reissue application.

The invention pertains to a high power metal oxide semiconductor field effect transistor device having a number of identical, spaced polygonal base regions formed in a

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semiconductor chip.

Representative claims 1 and 9 are reproduced as follows:

1. A high power MOSFET device having more than 1000 parallel-connected individual FET devices closely packed into a relatively small area comprising;

a thin wafer of semiconductor material having first and second spaced, parallel planar surfaces; at least a first portion of the thickness of said wafer which extends from said first planar surface consisting of an epitaxially deposited region of a first conductivity type;

a plurality of symmetrically disposed laterally distributed hexagonal base regions each having a second conductivity type formed in said epitaxially deposited region and extending for a given depth beneath said first planar surface;

said hexagonal base regions spaced at said first surface from surrounding ones by a symmetric hexagonal lattice of semiconductor material of said first conductivity type;

each side of each of said hexagonal base regions being parallel to an adjacent side of another of said hexagonal base regions;

a hexagonal annular source region of said first conductivity type formed in an outer peripheral region of each of said hexagonal base regions and extending downwardly from said first planar surface to a depth less than the depth of said base regions;

an outer rim each of said annular source regions being radially inwardly spaced from an outer periphery of its respective hexagonal base regions to form an annular channel between each of said outer rims of said annular source regions

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and said symmetric hexagonal lattice of semiconductor material of said first portion of said wafer;

a common source electrode formed on said first planar surface and connected to a plurality of said annular source regions and to interiorly adjacent surface areas of [their] said respective hexagonal base regions;

a drain electrode connected to said second planar surface of said wafer;

an insulation layer means on said first planar surface and overlying at least said annular channels;

a polysilicon gate electrode atop said insulation layer means and operable to invert said annular channels; and

a gate pad electrode section disposed above said first planar [on the] surface of said device and at least one finger extending from said gate pad; said at least one finger electrically contacting said polysilicon gate electrode at a plurality of spaced locations over [the surface of] said polysilicon gate electrode, thereby to reduce the R-C delay constant of said device.

9. A high power MOSFET device having more than 1000 parallel-connected individual FET devices closely packed into a relatively small area comprising;

a thin wafer of semiconductor material having first and second spaced, parallel planar surfaces; at least a first portion of the thickness of said wafer which extends from said first planar surface consisting of an epitaxially deposited region of a first conductivity type;

a plurality of symmetrically disposed laterally distributed hexagonal base regions each having a second conductivity type formed in said epitaxially deposited region and extending for a given depth beneath said first planar surface;

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said hexagonal base regions spaced at said first surface from surrounding ones by a symmetric hexagonal lattice of semiconductor material of said first conductivity type;

each side of each of said hexagonal base regions being parallel to an adjacent side of another of said hexagonal base regions;

a hexagonal annular source region of said first conductivity type formed in an outer peripheral region of each of said hexagonal base regions and extending downwardly from said first planar surface to a depth less than the depth of said base regions;

an outer rim of each of said annular source regions being radially inwardly spaced from an outer periphery of its respective hexagonal base regions to form an annular channel between each of said outer rims of said annular source regions and said symmetric hexagonal lattice of semiconductor material of said first portion as said wafer;

a common source electrode formed on said first planar surface and connected to a plurality of said annular source regions and to interiorly adjacent surface areas of said respective hexagonal base regions;

a drain electrode connected to one of said surfaces of said wafer;

an insulation layer means on said first planar surface and overlying at least said annular channels;

a polysilicon gate electrode atop said insulation layer means and operable to invert said annular channels; and

a gate pad electrode section disposed above the first planar surface of said device and at least one finger extending from said gate pad; said at least one finger electrically contacting said polysilicon gate electrode, thereby to reduce the R-C delay constant of said device.

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The examiner relied on the following references in the final rejection:

Ishitani	4,072,975	Feb. 07, 1978
Jambotkar	4,145,700	Mar. 20, 1979
		(filed Aug. 08,
1977)		
Hendrickson	4,148,047	Apr. 03, 1979
		(filed Jan. 16,
1978)		
Tihanyi et al. (Tihanyi)	4,190,850	Feb. 26, 1980
		(filed Jan. 17,
1978)		
Lidow et al. (Lidow '286)	4,376,286	Mar. 08, 1983
Yoshida et al. (Yoshida '576)	4,599,576	July 08, 1986
Lidow et al. (Lidow '666)	4,642,666	Feb. 10, 1987
Lidow et al. (Lidow '759)	4,705,759	Nov. 10, 1987
Lidow et al. (Lidow '699)	4,959,699	Sep. 25, 1990
Takakuwa	51-134076	Nov. 20, 1976
(Japanese Kokai)		
Okabe et al. (Okabe)	52-104878	Sep. 02, 1977
(Japanese application)		
Sakai	52-106688	Sep. 07, 1977
(Japanese application)		

Y. Tarui et al. (Tarui), "Diffusion Self-Aligned MOST: A New Approach for High Speed Device," J. Japan Society of Applied Physics, Vol. 39 (1970), pages 105-110.

Isao Yoshida et al. (Yoshida IEEE), "A High Power MOSFET with a Vertical Drain Electrode and a Meshed Gate Structure," IEEE Journal of Solid-State Circuits, Vol. SC-11, No. 4 (August 1976), pages 472-477.

Michael D. Pocha et al. (Pocha), "A Computer-Aided Design Model for High-Voltage Double Diffused MOS (DMOS) Transistors," IEEE Journal of Solid State Circuits, Vol. SC-11, No. 5 (October 1976), pages 718-726.

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James D. Plummer et al. (Plummer), "A Monolithic 200-V CMOS Analog Switch," IEEE Journal of Solid State Circuits, Vol. SC-11, No. 6 (December 1976), pages 809-817.

Brad W. Scharf et al. (Scharf), "A MOS-Controlled Triac Device," 1978 IEEE International Solid-State Circuits Conference, Digest of Technical Papers (February 1978), pages 222-223.

Kenneth P. Lisiak et al. (Lisiak), "Optimization of Nonplanar Power MOS Transistors," IEEE Transactions on Electron Devices, Vol. ED-25, No. 10 (October 1978), pages 1129-1234.

The following rejections of the claims are before us:

1. Claims 1-39 stand rejected under 35 U.S.C. § 251 as being based upon an objectionably defective Reissue Declaration under 37 CFR § 1.175.

2. Claims 9-39 stand rejected under 35 U.S.C. § 112, first paragraph, as being directed to an invention which was not properly disclosed in the specification of the patent.

3. Claims 17-28 and 33-39 stand rejected under 35 U.S.C. § 251 as improperly seeking to broaden an invention more than two years after the invention was patented.

4. Claims 3, 5, 7, 11-16, 20, 21, 23, 24, 26, 27,

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29/3, 29/11, 30/3, 30/5, 30/11, 30/13, 31, 32, 34/20 and 39 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Takakuwa, Okabe, Yoshida IEEE and Yoshida '576.

5. Claims 3, 5, 7, 11-16, 20, 21, 23, 24, 26, 27, 29/3, 29/11, 30/3, 30/5, 30/11, 30/13, 31, 32, 34/20 and 39 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Hendrickson, Takakuwa, Yoshida IEEE and Yoshida '576.

6. Claims 33/20 and 38 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Takakuwa, Okabe, Yoshida IEEE and Yoshida '576 and further in view of Hendrickson and Lisiak.

7. Claims 3, 5, 7, 11-16, 20, 21, 23, 24, 26, 27, 29/3, 29/11, 30/3, 30/5, 30/11, 30/13, 31, 32, 33/20, 34/20, 38 and 39 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Jambotkar, Takakuwa, Hendrickson, Lisiak, Yoshida IEEE and Yoshida '576.

8. Claims 22, 25, 28 and 35 stand rejected under 35

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U.S.C. § 103 as being unpatentable over the teachings of Takakuwa, Okabe, Hendrickson, Yoshida IEEE, Yoshida '576, Jambotkar, Lisiak and Lidow '286.

9. Claims 3, 5, 7, 11-16, 20, 21, 23, 24, 26, 27, 29/3, 29/11, 30/3, 30/5, 30/11, 30/13, 31, 32, 34/20 and 39 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Hendrickson, Lisiak, Tarui, Tarui, Yoshida IEEE and Yoshida '576.

10. Claims 3, 5, 7, 11-16, 20, 21, 23, 24, 26, 27, 29/3, 29/11, 30/3, 30/5, 30/11, 30/13, 31, 32, 34/20 and 39 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Hendrickson, Jambotkar, Takakuwa, Tarui, Yoshida IEEE and Yoshida '576.

11. Claims 22, 25, 28 and 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Hendrickson, Jambotkar, Takakuwa, Tarui, Yoshida IEEE, Yoshida '576 and Lidow '286.

12. Claims 33/20 and 38 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Hendrickson, Jambotkar, Takakuwa, Tarui, Yoshida IEEE, Yoshida '576 and

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Lisiak.

13. Claims 36/20, 36/23, 36/26 and 37 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Hendrickson, Takakuwa, Jambotkar, Tarui, Yoshida IEEE, Yoshida '576, Okabe and Lisiak, considered with Ishitani and each of the corroborative MOSFET references of Sakai, Plummer, Scharf, Tihanyi, Pocha and Lidow '286, '666, '759 and '699.

Rather than repeat the arguments of appellants 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 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 appellants' 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

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before us, that the rejection of all claims based on defective declarations filed under 37 CFR § 1.175 is not proper. We are further of the view that the original disclosure of Lidow '767 does not support the invention now being presented as claims 9-17, 19, 20, 22, 23, 25, 26, 28, 29/9, 29/11, 30/9, 30/11, 30/13, 31/15, 32/15 and 33-39. We reach the opposite conclusion with respect to claims 18, 21, 24 and 27. We are additionally of the view that claims 17-28 and 33-39 improperly seek to broaden the invention of a patent through reissue more than two years after the patent has issued. Finally, we are of the view that the collective evidence relied upon would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 3, 5, 7, 11-16 and 20-39. Accordingly, we affirm-in-part.

We consider first the rejection of all claims under 35 U.S.C. § 251 as being based on defective reissue declarations under 37 CFR § 1.175. We note that this rule was amended in 1997 to ease the burden on applicants for reissue in complying with this rule. The reissue application was originally filed

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in 1994 and included a declaration filed in accordance with the rule in effect at that time. The examiner found this declaration to be defective. A subsequent declaration was filed after the new version of the rule took effect and was intended to comply with the new rule. That declaration appeared to conform with the technical requirements of the amended rule, and the error was indicated as claiming less than appellants had a right to claim. Some of the claims were amended to encompass subject matter which had been interpreted as not falling within the scope of the claims of the patent.

The examiner's position on this rejection is based on the examiner's finding that the patent specification does not support certain embodiments that are now included within the broader language of some of the reissue claims. Stated simply, the examiner asserts that "there is no error for failing to claim subject matter that was not sufficiently disclosed to support possession and enablement under the first paragraph of 35 U.S.C. 112 because the subject matter couldn't have been properly claimed, either initially or here under Reissue examination" [answer, page 7].

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Appellants respond that the subsequent declaration filed on October 19, 1998 is in compliance with the amended version of 37 CFR § 1.175. According to appellants, at least one error has been identified which is all that is now necessary to satisfy 37 CFR § 1.175.

On the very narrow question of whether the subsequent declaration filed by appellants satisfies 37 CFR § 1.175, we agree with appellants. The subsequent declaration appears to be in technical compliance with the amended rule. In our view, the examiner is confusing the identification of an error as required by 37 CFR § 1.175 with the question of whether a given attempt to correct the error is acceptable. We conclude that an error within the meaning of 37 CFR § 1.175 has been made when a patentee believes that he claimed more or less than he had a right to claim and identifies the perceived error in the declaration. Since we do not agree with the examiner that there is no "error" within the meaning of 37 CFR § 1.175, we do not sustain the rejection of claims 1-39 as being based on a defective declaration.

We now consider the rejection of claims 9-39 under 35

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U.S.C. § 112, first paragraph, as being directed to an invention which was not properly disclosed in the specification of the patent. This rejection is based on the examiner's position that these broadened claims of the reissue application and the reexamination proceeding encompass embodiments which were not part of the written description of the patent specification.

Appellants' position, quite simply, is that the claim is permitted to cover more than the preferred embodiment. Stated otherwise, appellants argue that "[s]o long as the claim can be read on the preferred embodiment, the claim passes muster under 35 U.S.C. § 112, first paragraph" [brief, page 15]. Appellants call this rejection a rejection on the ground of "undue breadth" which is not properly made in predictable mechanical and electrical arts. Appellants also argue that the incorporation of Patent No. 4,376,286 (Lidow '286) would have suggested that the disclosed invention was not limited to bottom drain devices.

With respect to appellants' argument that the broadened claims read on the preferred embodiment and are,

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therefore, automatically in compliance with the first paragraph of 35 U.S.C. § 112, we do not agree. There are cases where appellants' proposed rule does not apply. For example, the following statements come from the Federal Circuit decision in The Gentry Gallery Inc. v. The Berkline Corp., 134 F.3d 1473, 1479, 45 USPQ2d 1498, 1503 (Fed Cir. 1998):

Gentry's reliance on Ethicon is misplaced. It is true, as Gentry observes, that we noted that "an applicant . . . is generally allowed claims, when the art permits, which cover more than the specific embodiment shown." Ethicon, 93 F.3d at 1582 n.7, 40 USPQ2d at 1027 n.7 (quoting In re Vickers, 141 F.2d 522, 525, 61 USPQ2d 122, 125 (CCPA 1944)). However, we were also careful to point out in that opinion that the applicant "was free to draft claim[s] broadly (within the limits imposed by the prior art) to exclude the lockout's exact location as a limitation of the claimed invention" only because he "did not consider the precise location of the lockout to be an element of his invention." Id. Here, as indicated above, it is clear that Sproule considered the location of the recliner controls on the console to be an essential element of his invention. Accordingly, his original disclosure serves to limit the permissible breadth of his later-drafted claims.

...

In sum, the cases on which Gentry relies do not stand for the proposition that an applicant can broaden his claims to the extent that they are effectively bounded only by the prior art.

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Rather, they make clear that claims may be no broader than the supporting disclosure, and therefore that a narrow disclosure will limit claim breadth. Here, Sproule's disclosure unambiguously limited the location of the controls to the console. Accordingly, the district court clearly erred in finding that he was entitled to claims in which the recliner controls are not located on the console.

Thus, compliance with the written description requirement of 35 U.S.C. § 112 must be evaluated on a case by case basis. A narrow disclosure (preferred embodiment) does not automatically permit a claim directed to a broader embodiment unless it appears that the broader embodiment was considered to be part of the invention as originally disclosed. The key question appears to be whether the record reflects that appellants were in possession of the broader embodiment now encompassed by the broader claims. On the record before us, we agree with the examiner that the subject matter sought to be encompassed within the broader claims is not supported by the written description of the patent disclosure. Specifically, we agree with the examiner that the patent disclosure evidences no concept of a generic invention which includes devices in which the source and drain

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electrodes are located on the same planar surface. The appellants have not pointed to any acknowledgment, contemplation, or appreciation stemming from the specification, for such an embodiment. The incorporation of Lidow '286 into the patent disclosure does not change our position. The question is not what would have been obvious to the artisan in view of the patent disclosure, but rather, whether appellants appear to have been in possession of the invention they now seek to protect with the broader claims. For reasons discussed above, we find that the patent disclosure does not support the more generic invention according to the broader claims on appeal before us.

We reach the same conclusion on the question of the contact between the gate pad finger and the polysilicon gate electrode. Appellants have not shown evidence on this record that they ever considered the invention to be anything other than one in which the gate pad finger only contacts the polysilicon gate electrode "at a plurality of spaced locations." Therefore, we find that the patent disclosure also does not support broader claims which encompass devices

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having contacts at other than spaced apart locations.

At least one of these two claimed features which are not supported by the patent disclosure appears in claims 9-17, 19, 20, 22, 23, 25, 26, 28, 29/9, 29/11, 30/9, 30/11, 30/13, 31/15, 32/15 and 33-39. Therefore, we sustain the rejection of these claims as lacking a proper written description in the patent disclosure. We note that dependent claims 18, 21, 24 and 27 modify their parent claims to recite that "said one of said surfaces of said wafer is said second planar surface." This limitation effectively restores the claimed invention to having source and drain regions on different surfaces as originally disclosed and claimed in the patent. Therefore, this rejection does not apply to claims 18, 21, 24 and 27.

We now consider the rejection of Claims 17-28 and 33-39 under 35 U.S.C. § 251 as improperly seeking to broaden an invention more than two years after the invention was patented.

A brief review of the facts is necessary. The patent subject to this reissue and reexamination began as an application

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filed on May 14, 1979 which went abandoned. A continuation application of that application was filed on March 13, 1981 and it also went abandoned. A continuation of the second abandoned application was filed on December 23, 1988 which resulted in the issuance of Lidow '725 on April 16, 1991. A continuation of the application which led to Lidow '725 was filed on February 8, 1991 which resulted in the issuance of Lidow '767 on July 14, 1992. Lidow '767 is the patent which is the subject of this reissue application and reexamination proceeding.

The claims of Lidow '725 are similar to the claims of Lidow '767 but the claims of Lidow '725 are broader than the claims of Lidow '767 because they do not include the gate pad electrode section which appears in all the claims of Lidow '767. Appellants admit that claims 17-28 of this reissue application are essentially claims from Lidow '725 broadened in the same manner as the claims of Lidow '767 have been broadened. This reissue application was filed on July 14, 1994 which was exactly two years after the issue date of Lidow '767 but more than two years after the issue date of Lidow

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'725.

The examiner's rejection is based on the fact that claims from Lidow '725 cannot be broadened because more than two years had passed since Lidow '725 issued. Appellants' position is that since Lidow '767 is the patent which is the subject of this reissue, and since more than two years had not passed since Lidow '767 issued, any broadened claims sought to be reissued in Lidow '767 were timely filed.

As far as we can tell, the facts of this case present a unique issue to us. There is no question that appellants would not have been permitted to broaden the claims of Lidow '725 in a reissue of Lidow '725. The question before us is whether appellants should be permitted to broaden the claims of Lidow '725 more than two years after Lidow '725 issued by seeking to reissue them as a reissue of Lidow '767. We have concluded that, under the facts of this case, logic and common sense dictates that appellants should not be allowed to circumvent the clear intent of 35 U.S.C. § 251 with respect to broadened reissue claims.

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Of particular importance to us is the fact that appellants voluntarily chose to prosecute the similar inventions of Lidow '725 and Lidow '767 separately. The decision was made to prosecute claims having the gate pad electrode section in a new application and to seek a separate patent on claims having that feature. That is, appellants voluntarily took the patent having broader claims without the gate pad section and then sought the patent for the narrower claims having the gate pad section. In our view, once an applicant has deliberately made a line of demarcation between the related inventions of two separate applications, that line of demarcation should be maintained in subsequent reissue applications because the applicant deliberately elected that line of demarcation. In other words, for purposes of determining what is "the invention disclosed in the original patent" [35 U.S.C. § 251], the line of demarcation intentionally selected by an applicant must be maintained.

As noted above, all the claims of Lidow '767 contained the recitation of a gate pad electrode section whereas the claims of Lidow '725 did not include this feature. Thus,

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appellants specifically elected the line of demarcation between Lidow '767 and Lidow '725 to occur at the recitation of the gate pad electrode section. Thus, not only was there no intent to have claims without the gate pad electrode section in Lidow '767, but appellants specifically opted to take claims of this breadth in Lidow '725. Therefore, claims without the gate pad electrode section are not directed to "the invention" of Lidow '767, but rather, are directed to "the invention" of Lidow '725.

Based on the foregoing discussion, we agree with the examiner that broadened reissue claims 17-28 and 33-39 of this reissue application and reexamination proceeding are not directed to the invention of Lidow '767. These claims are correctly viewed as an attempt to reissue the claims of Lidow '725 as noted by the examiner. Since this reissue application was filed more than two years after Lidow '725 issued and seeks to broaden the claims of Lidow '725, we agree with the examiner that these claims run afoul of the broadening restriction set forth in 35 U.S.C. § 251.

The Federal Circuit has recognized that the

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determination of the propriety of broadened reissues requires balancing the rights of inventors to correct their patents with the rights of the public to rely on the absence of a broadening reissue application within two years of grant of a patent. See In re Graff, 111 F.3d 874, 877, 42 USPQ2d 1471, 1474 (Fed. Cir. 1997). The filing of the continuation application which resulted in Lidow '767 could not have apprised the public that the claims of Lidow '725 would still be subjected to broadening by reissue outside the first two years of the grant of Lidow '725. Any other result would permit appellants to blatantly ignore and nullify the requirements of 35 U.S.C. § 251. Therefore, we sustain the rejection of claims 17-28 and 33-39 under 35 U.S.C. § 251 as improperly broadening claims of a patent more than two years after the patent has been granted.

We now consider the rejections of the claims under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In

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so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

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We consider first all the obviousness rejections based at least partially on the teachings of Takakuwa. A substantial amount of disagreement exists between appellants and requester SGS regarding the translation of Takakuwa from the original Japanese and what inferences can be drawn from the translation. It is noted that both appellants and SGS have provided translations in this merged appeal of the reexamination proceeding and the reissue application and both have referred to declarations supporting conflicting interpretations of the various translations. It is important to note that the competing declarations not only dispute the literal translation of the Takakuwa patent, but also what that literal translation would have suggested to the artisan at the time of the filing of the original application for patent. The examiner's rejection demonstrates that he weighed the conflicting evidence of appellants' experts and of SGS's experts regarding what is taught or suggested by Takakuwa. The examiner decided that he agreed with the opinions expressed by the experts found by requester SGS.

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With respect to the Takakuwa document, we are not satisfied that the Takakuwa translation (any of them) teaches or suggests that which is attributed to it by the examiner and requester SGS. As noted above, the evidence at best reflects only an evenly contradictory view by appellants and the requester as to what is the correct Takakuwa translation and what that translation would have suggested to the artisan. The experts' interpretations of the Takakuwa document are each not without questionable uncertainty. The examiner has set forth no reason why requester's view as to what is taught by Takakuwa should be considered more credible than appellants' evidence and arguments submitted in opposition to requester's position. A rejection under 35 U.S.C. § 103 cannot be based on an unexplained preference for the requester's expert opinion without accounting for the evidence submitted by appellants. Any rejection must be supported by a clear factual record.

With respect to each of the obviousness rejections on appeal before us, we are also of the view that the collective

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teachings of the references do not suggest their combination as proposed by the examiner. It is remarkable what can be read into prior art references from 1976 using knowledge available in 1998. Our view of the rejection is that it is not based only on the clear teachings of the references. The rejection appears to be a complicated effort to throw various bits and pieces together and to rely on a general premise proposed by the reexamination requester that the person skilled in this art could have made the invention. The rejection basically takes the position that any feature in one type of semiconductor device was automatically applicable to a different type of semiconductor device in 1979. Thus, the examiner combines teachings from different types of semiconductor structures with the only rationale being that the artisan would have recognized the obviousness of mixing these teachings. Although we do not doubt that the artisan provided with the invention on appeal could have fabricated such a device in 1979, we do not see where the references relied on suggest all the features of the claimed invention and the motivation to combine the references as proposed by

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the examiner. We have a strong sense that the artisan, even if provided with all the applied prior art, would not have come up with the claimed invention in 1979 without the advance knowledge of what was invented here.

Our appellate reviewing court recently made the following observation in Smiths Industries Medical Systems v. Vital Signs, 183 F.3d 1347, 1356, 51 USPQ2d 1415, 1420-1421 (Fed. Cir. 1999):

[T]here is no basis for concluding that an invention would have been obvious solely because it is a combination of elements that were known in the art at the time of the invention. Instead, the relevant inquiry is whether there is a reason, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the references, and that would also suggest a reasonable likelihood of success. Such a suggestion or motivation may come from the references themselves, from knowledge by those skilled in the art that certain references are of special interest in a field or even from the

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nature of the problem to be solved. .
. . [T]he court never identified the
source of the various claim
limitations in the prior art, much
less a motivation, teaching or
suggestion to combine them.

The examiner has not persuasively identified in the
prior art relied upon where there is a reason, suggestion or
motivation to make the claimed combination.

When making a rejection, it is incumbent on the
examiner to refer to specific passages in the prior art
relied
upon and not just a reference as a whole. Cf. Clintec
Nutrition Co. v. Baxa Corp., 44 USPQ2d 1719, 1723 n.16 (N.D.
Ill. 1997) (where a party points the court to multi-page
exhibits without citing a specific portion or page, the
court will not pour over the documents to extract the
relevant information, citing United States v. Dunkel, 927
F.2d 955, 956 (7th Cir. 1991) (judges do not hunt for
truffles buried in briefs). The examiner's answer in this
appeal is at best an invitation to the board to scour the
record, research any legal theory that comes to mind, and
serve generally the function of a patent examiner. We

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decline the invitation, believing it appropriate for the examiner in the first instance to fully explain why a rejection is proper. Cf. Ernst Haas Studio, Inc. v. Palm Press, Inc., 164 F.3d 110, 112, 49 USPQ2d 1377, 1379 (2d Cir. 1999).

Therefore, for all the reasons discussed above, the rejection of claims 3, 5, 7, 11-16 and 20-39 under 35 U.S.C. § 103 is not sustained.

In summary, the various rejections before us have been decided as follows:

1. The rejection of claims 1-39 under 35 U.S.C. § 251 as based on defective declarations has been reversed.
2. The rejection of claims 9-39 under 35 U.S.C. § 112, first paragraph, is affirmed as to claims 9-17, 19, 20, 22, 23, 25, 26, 28, 29/9, 29/11, 30/9, 30/11, 30/13, 31/15, 32/15 and 33-39, but is reversed as to claims 18, 21, 24 and 27.
3. The rejection of claims 17-28 and 33-39 under 35 U.S.C. § 251 as improperly seeking to broaden the invention of a patent through reissue more than two years after the

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patent has issued is affirmed.

4. The rejections of claims 3, 5, 7, 11-16 and 20-39 under 35 U.S.C. § 103 based on various combinations of prior art are all reversed.

Accordingly, the decision of the examiner rejecting claims 1-39 is affirmed-in-part.

AFFIRMED-IN-PART

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Administrative Patent Judge)	
)	
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)	
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