

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

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MIKKO PESOLA

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Appeal No. 1999-0859  
Application No. 08/330,972

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ON BRIEF

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Before HAIRSTON, KRASS, and RUGGIERO, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1, 3, 4, 6-8, and 10-16, which are the only claims remaining in the application. Claims 2, 5, and 9 have been canceled.

The claimed invention relates to a circuit arrangement for switching the frequency range of a signal from a radio receiver

to a desired frequency band selected from a first frequency band and a second frequency band. The received radio frequency signal is phase shifted and mixed with signals from a divided local oscillator, the frequency of the local oscillator being selected to be in the middle of the two selected frequency bands. The intermediate frequency signal produced as the output of the mixing operation is phase shifted and filtered through first and second bandpass filters having differing widths. The desired intermediate frequency is selected from the outputs of either the first or second bandpass filters through operation of a switch. Appellant asserts at pages 3 and 4 of the specification that the claimed circuit arrangement achieves the desired result using a single selector switch, thereby avoiding the problems associated with prior art multi-switch arrangements.

Claim 1 is illustrative of the invention and reads as follows:

1. A circuit arrangement for switching the frequency range of a radio receiver, utilizing image frequency bands, to a desired frequency band selected from between a first frequency band having channels with a first bandwidth and a second frequency band having channels with a second bandwidth, whereby the frequency of a local oscillator is adapted approximately to the middle of the two selected

frequency bands, characterised in that the circuit arrangement comprises:

to - a mixer attenuating the image frequency comprising means to phase-shift a received radio frequency signal, means to mix said phase-shifted received radio signal and a local oscillator signal, and means to phase-shift an intermediate frequency signal resulting from the mixing of said phase-shifted received radio signal and said local oscillator signal, said mixer having at least a first output and a second output with an intermediate frequency corresponding to the first frequency band being obtained from the first output of the mixer, and an intermediate frequency corresponding to the second frequency band being obtained from the second output;

- a first bandpass filter, having a passband [sic. passband] with a width that substantially corresponds to the bandwidth of the channels of the first frequency band, coupled to said first output of said mixer;

- a second bandpass filter, having a passband [sic. passband] with a width that differs from said first bandpass filter and substantially corresponds to the bandwidth of the channels of the second frequency band, coupled to said second output of said mixer; and

- a switch for selecting a desired intermediate frequency corresponding to the desired frequency band either from the output of said first bandpass filter or the output of said second bandpass filter.

The Examiner relies on the following prior art:

Perlich	4,207,532	Jun. 10, 1980
Gorrie et al. (Gorrie)	5,214,796	May 25, 1993
Oto	5,437,051	Jul. 25, 1995

(filed Sep. 18, 1992)

Appeal No. 1999-0859  
Application No. 08/330,972

Greg Magin (Magin), "A Robust Signaling Technique for Part 15 RF Control Network Applications", RF Design, No. 4, pages 29-38, (April 1993).

Claims 1, 3, 4, 6-8, and 10-16 stand finally rejected under 35 U.S.C. § 103. As evidence of obviousness, the Examiner offers Gorrie in view of Oto and Magin with respect to claims 1, 3, 4, 6, 7, and 10-16, and adds Perlich to the basic combination with respect to claim 8.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Briefs<sup>1</sup> and Answer for the respective details.

#### OPINION

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 so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ

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<sup>1</sup> The Appeal Brief was filed June 11, 1998 (Paper no. 18). In response to the Examiner's Answer dated September 2, 1998 (Paper No. 19), a Reply Brief was filed October 26, 1998 (Paper No. 20), which was acknowledged and entered by the Examiner as indicated in the communication dated December 21, 1998 (Paper No. 21).

Appeal No. 1999-0859  
Application No. 08/330,972

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).

Appellant's response to the Examiner's obviousness rejection asserts the Examiner's failure to set forth a prima facie case of obviousness since proper motivation for the proposed combination of references has not been established. In particular, Appellant argues (Brief, page 24) that the

Appeal No. 1999-0859  
Application No. 08/330,972

Examiner's rejections "...are based on assembling a number of prior art references and attempting to modify their teachings to purportedly show that the combination of these teachings would have rendered appellant's combination of circuit elements obvious."

After careful review of the applied prior art references in light of the arguments of record, we are in agreement with Appellant's position as stated in the Briefs. In our view, the Examiner has combined the general teachings of three references related to image attenuating mixers in some vague manner without specifically describing how the teachings would be combined. This does not persuade us that one of ordinary skill in the art having the references before her or him, and using her or his own knowledge of the art, would have been put in possession of the claimed subject matter.

A review of the Examiner's analysis in the Answer reveals that the Examiner has never attempted to show how each of the claimed limitations is suggested by the teachings of the applied prior art. Further, other than the fact that the Gorrie and Oto references are related to frequency selection, the Examiner's statement of the grounds of rejection is lacking in any

Appeal No. 1999-0859  
Application No. 08/330,972

rationale as to why the skilled artisan would combine these prior art references. Rather than pointing to specific information in Gorrie and Oto that would suggest their combination, the Examiner instead has described piecemeal similarities between each of the references and the claimed invention. Nowhere does the Examiner identify any suggestion, teaching, or motivation to combine the Gorrie and Oto references nor does the Examiner establish any findings as to the level of ordinary skill in the art, the nature of the problem to be solved, or any other factual findings that would support a proper obviousness analysis. See, e.g., Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F. 3d 1568, 37 USPQ2d 1626 (Fed. Cir. 1996).

Further, it is our view that the Examiner's proposed addition of Magin to the combination of Gorrie and Oto does not cure the deficiencies of either reference, singly or in combination. Even assuming arguendo that the recited limitations of the independent claims are found in the various references, we find no motivation for modifying any combination of Gorrie and Oto in the manner suggested by the Examiner. There is nothing in the disclosures of either Gorrie or Oto to

Appeal No. 1999-0859  
Application No. 08/330,972

indicate that signaling in spread spectrum operation, the problem addressed by the structure of Magin, was ever a concern. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F. 2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). The only basis for applying Magin's teachings to Gorrie and Oto comes from an improper attempt to reconstruct Appellant's invention in hindsight.

As to the 35 U.S.C. § 103 rejection of dependent claim 8 based on the combination of Gorrie, Oto, Magin, and Perlich, we note that Perlich was applied solely to meet the different bandwidth feature of the claim. Perlich, however, does not overcome the innate deficiencies of Gorrie, Oto, Magin and, therefore, we do not sustain the obviousness rejection of dependent claim 8.

In conclusion we have not sustained the Examiner's obviousness rejection of any of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1, 3, 4, 6-8, and 10-16 is reversed.

REVERSED

Appeal No. 1999-0859  
Application No. 08/330,972

KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
ERROL A. KRASS	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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Application No. 08/330,972

# *Lettie*

JUDGE RUGGIERO

APPEAL NO. 1999-0859

APPLICATION NO. 08/330,972

APJ RUGGIERO

APJ HAIRSTON

APJ KRASS

DECISION: **REVERSED**

**PREPARED:** Jun 13, 2002

**OB/HD**

**PALM**

**ACTS 2**

**DISK (FOIA)**

**REPORT**

**BOOK**