

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 December 2001 (20.12.2001)

PCT

(10) International Publication Number
WO 01/097416 A3

(51) International Patent Classification⁷: **H04H 1/00**

(21) International Application Number: PCT/US01/17565

(22) International Filing Date: 31 May 2001 (31.05.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/595,369 15 June 2000 (15.06.2000) US

(71) Applicant: **IBIQUITY DIGITAL CORPORATION**
[US/US]; Suite 202, 8865 Stanford Boulevard, Columbia,
MD 21045 (US).

(72) Inventors: **KROEGER, Brian, William**; 12813 Amber-
woods Way, Sykesville, MD 21784 (US). **BAIRD, Jeffrey,**
S.; 10882 Olde Woods Way, Columbia, MD 21044 (US).

(74) Agent: **LENART, Robert, P.**; Pietragallo, Bosick & Gor-
don, 38th Floor, One Oxford Centre, Pittsburgh, PA 15219
(US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

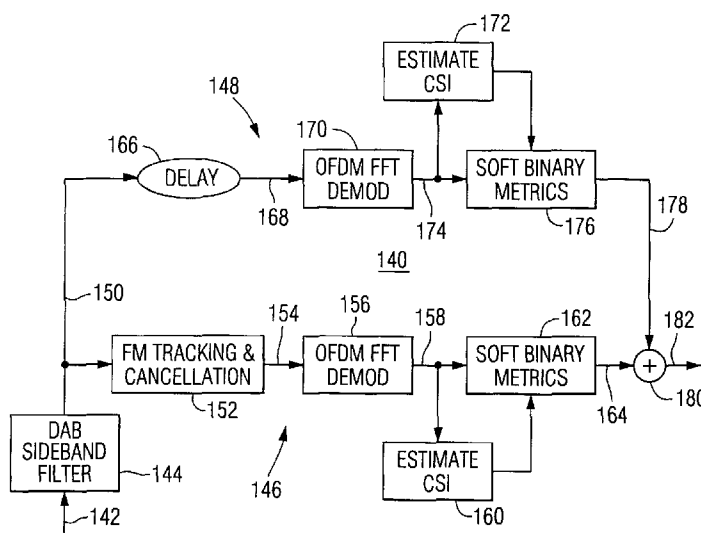
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

- with international search report

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR REDUCTION OF INTERFERENCE IN FM IN-BAND ON-CHANNEL DIGITAL AUDIO BROADCASTING RECEIVERS



(57) Abstract: This invention provides a method for reducing radio frequency interference in an FM in-band on-channel digital audio broadcasting receiver. The method comprises the steps of receiving a composite signal including a signal of interest and an interfering signal, demodulating the composite signal to produce a first demodulated signal, computing a first binary soft decision from the first demodulated signal, processing the composite signal to produce a processed signal, demodulating the processed signal to produce a second demodulated signal, computing a second binary soft decision from the second demodulated signal, and combining the first and second binary soft decisions to produce an output signal. Radio receivers that utilize the above method are also included.



WO 01/097416 A3



(88) Date of publication of the international search report:
10 October 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.