

Class	Subclass	ISSUE CLASSIFICATION

FILED UNDER 35 U.S.C. 371

PATENT NUMBER

U.S. UTILITY Patent Application

O.I.P.E.	PATENT DATE
4/1/02 SCANNED 10-2 Q.A.	

APPLICATION NO. 09/673266	CONT/PRIOR D	CLASS 375	SUBCLASS 346	ART UNIT 2634	EXAMINER VARTANIAN
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APPLICANTS
Ernst Eberlein
Sabah Badri
Stefan Lipp
Stephan Buchholz

TITLE
Differential coding and carrier recovery for multicarrier systems

PTO-2040
12/99

ISSUING CLASSIFICATION

ORIGINAL		CROSS REFERENCE(S)					
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
INTERNATIONAL CLASSIFICATION							

Continued on Issue Slip Inside File Jacket

<input type="checkbox"/> TERMINAL DISCLAIMER <input type="checkbox"/> The term of this patent subsequent to _____ (date) has been disclaimed. <input type="checkbox"/> The term of this patent shall not extend beyond the expiration date of U.S. Patent. No. _____ <input type="checkbox"/> The terminal _____ months of this patent have been disclaimed.	DRAWINGS Sheets Drwg. Figs. Drwg. Print Fig.			CLAIMS ALLOWED Total Claims Print Claim for O.G.	
	_____ (Assistant Examiner) _____ (Date)			NOTICE OF ALLOWANCE MAILED	
	_____ (Primary Examiner) _____ (Date)			ISSUE FEE Amount Due Date Paid	
	_____ (Legal Instruments Examiner) _____ (Date)			ISSUE BATCH NUMBER	

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SEARCHED			
Class	Sub.	Date	Exmr.
375	346	7/29/04	H.V.
370	32.1	7/29/04	H.V.
379	410	7/29/04	H.V.

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	Date	Exmr.
East: US PUB US PAT EPO J80 Derwent	7/29/04	H.V.
IEEE	7/29/04	H.V.

INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.
375	346	7/29/04	H.V.

(RIGHT-OUTSIDE)

FORM PTO-1390
(REV 10-01-00)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

41002

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

09/673266

INTERNATIONAL APPLICATION NO.
PCT/EP98/02167INTERNATIONAL FILING DATE
14 April 1998

PRIORITY DATE CLAIMED

TITLE OF INVENTION
Echo Phase Offset Correction in a Multi-Carrier Demodulation System

APPLICANT(S) FOR DO/EO/US

Ernst Eberlein, Sabah Badri, Stefan Lipp, Stephan Buchholz, Albert Heuberger, Heinz Gerhaeuser, Robert Fischer

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
 2. This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
 3. This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
 4. A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
 5. A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. has been transmitted by the International Bureau.
 - c. is not required, as the application was filed in the United States Receiving Office (RO/US).
 6. A translation of the International Application into English (35 U.S.C. 371(c)(2)).
 7. Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. have been transmitted by the International Bureau.
 - c. have not been made; however, the time limit for making such amendments has NOT expired.
 - d. have not been made and will not be made.
 8. A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
 9. An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
 10. A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).
- Items 11. to 16. below concern document(s) or information included:**
11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
 12. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
 13. A **FIRST** preliminary amendment.
 A **SECOND** or **SUBSEQUENT** preliminary amendment.
 14. A substitute specification.
 15. A change of power of attorney and/or address letter.
 16. Other items or information:
 - (a) Copy of International Application as filed (14 April 1998).
 - (b) Copy of International Search Report (12 January 1999).
 - (c) Copy of Published International Application (21 October 1999).
 - (d) Copy of International Preliminary Examination Report (19 July 2000).

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)		INTERNATIONAL APPLICATION NO. PCT/EP98/01267		ATTORNEY'S DOCKET NUMBER 41002	
17. <input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) : Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1000.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$860.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$710.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$690.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 ENTER APPROPRIATE BASIC FEE AMOUNT =				CALCULATIONS PTO USE ONLY	
				\$	860.00
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	130.00
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	18 - 20 =	0	X \$18.00	\$	0.00
Independent claims	4 - 3 =	0	X \$80.00	\$	80.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	\$	0.00
TOTAL OF ABOVE CALCULATIONS =				\$	1,070.00
Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$	(0.00)
SUBTOTAL =				\$	1,070.00
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	0.00
TOTAL NATIONAL FEE =				\$	1,070.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	0.00
TOTAL FEES ENCLOSED =				\$	1,070.00
				Amount to be refunded:	\$
				charged:	\$
a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>1,070.00</u> to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>18-2220</u> . A duplicate copy of this sheet is enclosed.					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO: Roylance, Abrams, Berdo & Goodman, L.L.P. 1300 19th Street, N.W., Suite 600 Washington, DC 20036				_____ SIGNATURE: John E. Holmes _____ NAME 29,392 _____ REGISTRATION NUMBER	

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