

Title (en)

MULTIPLE ANTENNA SYSTEMS AND METHODS USING HIGH-THROUGHPUT SPACE-FREQUENCY BLOCK CODES

Title (de)

MEHRFACHANTENNENSYSTEME UND VERFAHREN ZUR VERWENDUNG VON RAUM-FREQUENZ-BLOCKCODES MIT HOHEM DURCHSATZ

Title (fr)

SYSTEMES A ANTENNES MULTIPLES ET PROCEDES UTILISANT DES CODES DE BLOCS A FREQUENCE SPATIALE A HAUT DEBIT

Publication

**EP 1665616 A2 20060607 (EN)**

Application

**EP 04788700 A 20040910**

Priority

- US 2004029698 W 20040910
- US 50309203 P 20030915
- US 81411304 A 20040330

Abstract (en)

[origin: WO2005029758A2] A multicarrier transmitter uses high-throughput space-frequency block codes to map transmit symbols to a particular transmit antenna and a particular subcarrier of a multicarrier communication channel.

IPC 1-7

**H04L 1/06**; **H04L 1/00**; **H04L 27/26**; **H04B 7/06**; **H04B 7/08**

IPC 8 full level

**H04J 99/00** (2009.01); **H04B 7/06** (2006.01); **H04B 7/08** (2006.01); **H04L 1/00** (2006.01); **H04L 1/06** (2006.01); **H04L 27/26** (2006.01)

CPC (source: EP US)

**H04L 1/0606** (2013.01 - EP); **H04L 1/0643** (2013.01 - EP US); **H04L 27/2602** (2013.01 - EP US)

Citation (search report)

See references of WO 2005029758A2

Citation (examination)

- HESHAM EL GAMAL; MOHAMED OUSSAMA DAMEN: "Universal Space-Time Coding", IEEE TRANSACTIONS ON INFORMATION THEORY, vol. 49, no. 5, May 2003 (2003-05-01), IEEE SERVICE CENTER, PISCATAWAY, NJ, US, pages 1097 - 1119, XP011074756, ISSN: 0018-9448
- ENZO BACCARELLI; ANTONIO FASANO: "Some Simple Bounds on the Symmetric Capacity and Outage Probability for QAM Wireless Channels with Rice and Nakagami Fading", IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, vol. 18, no. 3, March 2003 (2003-03-01), IEEE SERVICE CENTER, PISCATAWAY, US, pages 361 - 368, XP000947363
- HOCHWALD B.M. ET AL: "Systematic Design of Unitary Space-Time Constellations", IEEE TRANSACTIONS ON INFORMATION THEORY, vol. 46, no. 6, September 2000 (2000-09-01), IEEE SERVICE CENTER, PISCATAWAY, NJ, US, pages 1962 - 1973, XP011027740

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

**US 2004029698 W 20040910**; EP 04788700 A 20040910; JP 2006526343 A 20040910; TW 93127726 A 20040914