

Title (en)
APPARATUS FOR CHANNEL ENCODING FOR ENHANCEMENT LAYER OF DIGITAL MULTIMEDIA BROADCASTING TRANSMITTER, DIGITAL MULTIMEDIA BROADCASTING TRANSMITTER SYSTEM, DIGITAL MULTIMEDIA BROADCASTING RECEIVING SYSTEM AND EXPANSION-FORM OF FIG 0/1

Title (de)
VORRICHTUNG ZUR KANALKODIERUNG FÜR EINE ANREICHERUNGSSCHICHT EINES DIGITALEN MULTIMEDIA-RUNDFUNKSENDERS, DIGITALES MULTIMEDIA-RUNDFUNKSENDERSYSTEM, DIGITALES MULTIMEDIA-RUNDFUNKEMPfangSSYSTEM UND EXPANSIONSFORM VON FIG 0/1

Title (fr)
APPAREIL POUR CODAGE DE CANAL POUR COUCHE D'AMÉLIORATION D'UN ÉMETTEUR DE RADIODIFFUSION MULTIMÉDIA NUMÉRIQUE, SYSTÈME ÉMETTEUR DE RADIODIFFUSION MULTIMÉDIA NUMÉRIQUE, SYSTÈME RÉCEPTEUR DE RADIODIFFUSION MULTIMÉDIA NUMÉRIQUE ET EXPANSION-MISE EN FORME DE

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Abstract (en)
[origin: WO2008136618A1] The present invention relates to a channel encoder for an enhancement layer of a digital-multimedia-broadcasting transmitting device, a digital broadcasting transmitting device, a digital broadcasting receiving device, and an extension structure of sub-channel configuration field (FIG0/1) for designating a protection level of sub-channel at the enhancement layer. In a channel encoder for the enhancement layer according to the invention, the channel encoder is included in a hierarchical DMB transmitting unit that modulates a base layer transport stream and a enhancement layer transport stream for video and audio by a base layer modulation system and an enhancement layer modulation system, respectively, and performs symbol mapping of the enhancement layer according to the position of a constellation based on the base layer modulation system. Furthermore, the hierarchical DMB transmitting unit includes an energy dispersal scrambler that disperses energy of the enhancement layer transport stream, and a turbo encoder that receives a double-binary input vector corresponding to an output of the energy dispersal scrambler and encodes it by using a double-binary circular recursive systematic code.

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Citation (search report)
• [Y] WO 2007037618 A1 20070405 - KOREA ELECTRONICS TELECOMM [KR], et al
• [Y] "ETSI EN 301 790 V1.4.1: Digital Video Broadcasting (DVB); Interaction channel for satellite distribution systems", IEEE, LIS, SOPHIA ANTIPOLIS CEDEX, FRANCE, EUROPEAN BROADCASTING UNION UNION EUROPÉENNE DE RADIO-TÉLÉVISION EBUÛER, September 2005 (2005-09-01), XP014032161
• [A] BERROU C.: "DVB RCS057, Candidate channel turbo coding for DVB-RCS", DVB-TM AD HOC GROUP ON RETURN CHANNEL OVER SATELLITE, 3 October 2003 (2003-10-03), XP017812238
• [A] NAEEM RAMZAN ET AL: "Scalable Video Transmission Using Double Binary Turbo Code", 2006 IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING, October 2006 (2006-10-01), pages 1309 - 1312, XP031048885, ISBN: 978-1-4244-0480-3
• See references of WO 2008136618A1

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