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(21) International Application Number: PCT/IB99/00815 (22) International Filing Date: 6 May 1999 (06.05.99) (30) Priority Data: 98201590.1 14 May 1998 (14.05.98) EP (71) Applicant: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for SE only): PHILIPS AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE). (72) Inventors: TOLHUIZEN, Ludovicus, M., G., M.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). SLUIJTER, Robert, J.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). GERRITS, Andreas, J.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). (74) Agent: DEGUELLE, Wilhelmus, H., G.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).		(81) Designated States: CN, IN, JP, KR, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>Without international search report and to be republished upon receipt of that report.</i>
(54) Title: TRANSMISSION SYSTEM USING AN IMPROVED SIGNAL ENCODER AND DECODER (57) Abstract In a transmission system a signal to be transmitted is applied to a source encoder (4) for being encoded. The encoded signal is applied to a channel encoder (6) which applies an error correcting code on the encoded input signal. The output signal of the channel encoder (6) is transmitted to a receiver (14) which processes the received signal by means of a channel decoder (18) and a source decoder (20). The source encoder comprises a codebook entry selector (42) which selects a ternary number generated by a ternary generator (26), such that a synthetic signal derived from said ternary number is a best approximation of a signal to be encoded. The ternary value found in this way is converted into a binary number in such a way that the ternary values corresponding to binary numbers which differ only in one particular digit, differs only in one single digit. This has the advantage that a transmission error in said particular digit has a small perceptual effect, because the corresponding ternary number differs only slightly. In a preferred embodiment the numerical value of a first codebook entry corresponds to an index of a second codebook entry, and the numerical value of the second codebook entry corresponds to the index of the first codebook entry.		