(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 June 2001 (28.06.2001)

PCT

(10) International Publication Number
WO 01/47173 A3

(51) International Patent Classification[7]: H04B 7/15 // 1/59

(21) International Application Number: PCT/DK00/00723

(22) International Filing Date:
21 December 2000 (21.12.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/468,606 21 December 1999 (21.12.1999) US

(71) Applicant *(for all designated States except US)*: **GIGA APS** [DK/DK]; Mileparken 22, DK-2740 Skovlunde (DK).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **JOHANSEN, Henrik, Ingvar** [DK/DK]; Kaj Hoffmans Allé 40, DK-2750 Ballerup (DK).

(74) Agent: **PLOUGMANN, VINGTOFT & PARTNERS A/S**; Sankt Annæ Plads 11, P.O. Box 3007, DK-1021 Copenhagen K (DK).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EE, EE (utility model), ES, FI, FI (utility model), 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, SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

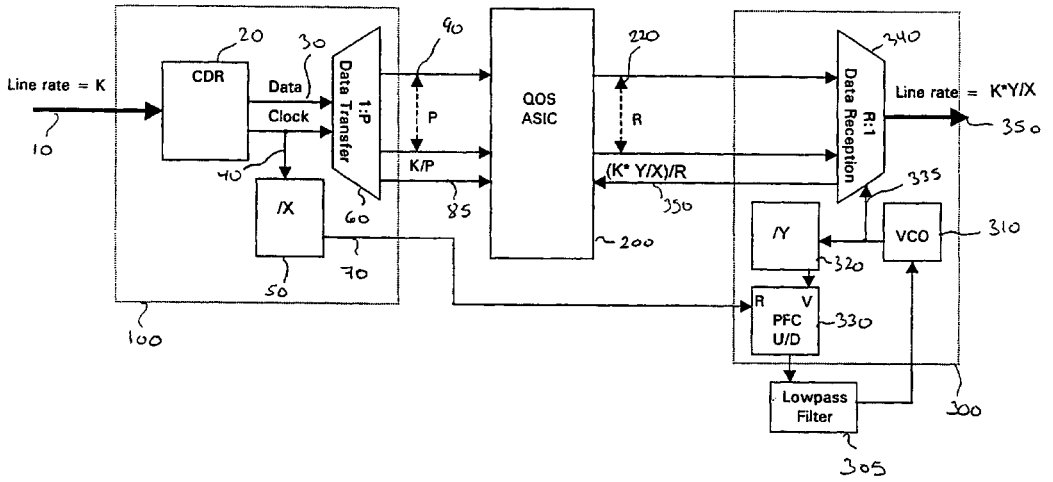
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML,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

Published:
— *with international search report*

(88) Date of publication of the international search report:
15 November 2001

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.

(54) Title: A MULTI-RATE TRANSPONDER SYSTEM AND CHIP SET



(57) Abstract: A multi-rate transponder system and circuit for receiving an incoming serial data stream and transmitting an outgoing serial data stream are disclosed. The system comprises a receiving part comprising a Clock and Data Recovery circuit, a data transfer circuit, a clock transfer circuit and a reference clock circuit, and a system controller comprising system data receiving means, system data transfer means, system data processing means and a slide-buffer, and a transmitting part comprising a transmitter Phase Locked Loop adapted to generate an output clock signal, a transmitter clock circuit, and a data reception circuit adapted to receive the outgoing data signal from the system data transfer means and to generate the serial outgoing data stream at the nominal bit rate or at the corresponding transport network bit rate independently of the bit rate of the incoming serial data stream, based on the outgoing data signal and the output clock signal.

WO 01/47173 A3