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(21) International Application Number: PCT/EP99/07811 (22) International Filing Date: 11 October 1999 (11.10.99) (30) Priority Data: 198 49 458.0 28 October 1998 (28.10.98) DE (71) Applicant: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for DE only): PHILIPS CORPORATE INTELLECTUAL PROPERTY GMBH [DE/DE]; Habsburgerallee 11, D-52066 Aachen (DE). (72) Inventor: DU, Yonggang; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). (74) Agent: VOLMER, Georg; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report.

(54) Title: WIRELESS NETWORK WITH CLOCK SYNCHRONIZATION**(57) Abstract**

The invention relates to a wireless network with a plurality of network nodes, each of which consists of at least one electrical apparatus and at least one radio device which are arranged to exchange data via a wireless medium. A network node includes a clock supply for supplying all electrical apparatus and the radio device with its clock. A network node which is designated as a main network node transmits, via its radio device, a synchronization pattern which is dependent on the clock of its clock supply. All other network nodes, referred to as secondary network nodes, are assigned to different, hierarchically ordered distance classes in dependence on their distance from the main network node which is assigned to the highest distance class. All

secondary network nodes of a distance class transmit, via their respective radio device, a synchronization pattern which is dependent on the clock of their respective clock supply and characterizes the distance class. A secondary network node synchronizes its clock supply by means of at least one received synchronization pattern of a hierarchically higher distance class.

