PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H03B 28/00, 23/00 — A1

(11) International Publication Number: WO 99/67877

(43) International Publication Date: 29 December 1999 (29.12.99)

(21) International Application Number: PCT/GB99/01932

(22) International Filing Date: 17 June 1999 (17.06.99)

(30) Priority Data:
9813513.0 24 June 1998 (24.06.98) GB

(71) Applicant *(for all designated States except US)*: BG PLC [GB/GB]; 100 Thames Valley Park Drive, Reading, Berkshire RG6 1PT (GB).

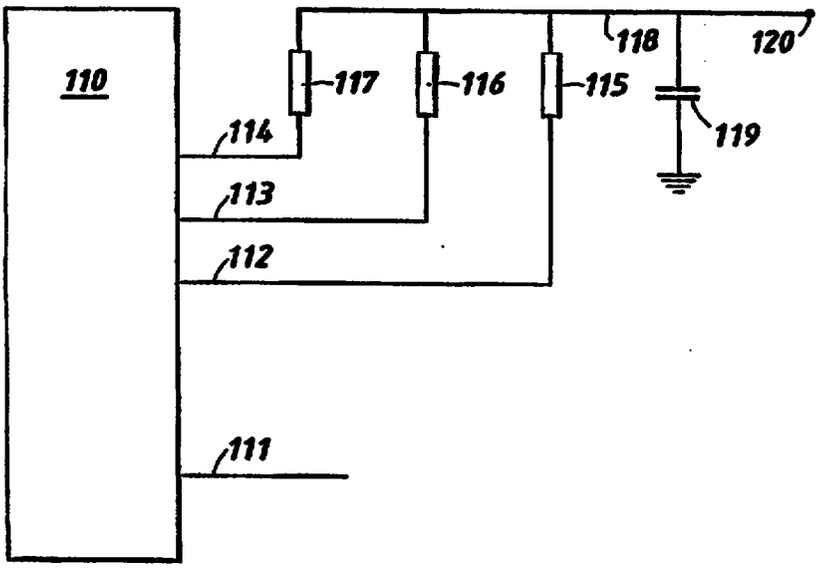
(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: HUMPHREY, Francis, Alan [GB/GB]; 193 Grange Drive, Melton Mowbray, Leicestershire LE13 1EL (GB). BYRNE, David [GB/GB]; 45 Juniper Way, Loughborough, Leicestershire LE11 2QA (GB). PRICE, Barry, Leonard [GB/GB]; 4 Swinfield Road, Quorn, Leicestershire LE12 8RJ (GB).

(74) Agent: ILLINGWORTH-LAW, William; BG plc, Intellectual Property Dept., 100 Thames Valley Park Drive, Reading, Berkshire RG6 1PT (GB).

(81) Designated States: AU, BR, CA, IN, JP, KR, MX, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
With international search report.

(54) Title: SYNTHESISING A SINE WAVE



(57) Abstract

A method and apparatus for synthesising an approximation to a sine wave comprising generating a number of pulse width modulated signals, each having a predetermined duty cycle and being the same frequency as each other, from a clock signal. The generated pulse width modulated signals are then combined to produce an approximation to a sine wave having the same frequency as the pulse width modulated signals. The clock signal is provided by an oscillator arranged to produce clock signals over continuous range of frequencies so that approximations to a sine wave can be produced over a continuous range of frequencies.