(12) UK Patent Application (19) GB (11) 2 091 507 A
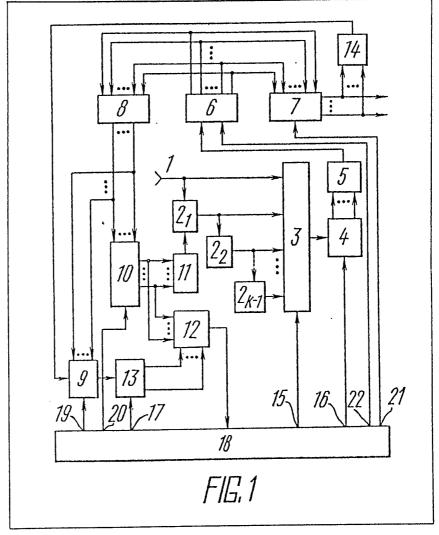
(21) Application No 8204360
(22) Date of filing 26 Jun 1980
(43) Date of issue
   28 Jul 1982
(51) INT CL³
   (As given by ISA)
   H03K 13/02
(52) Domestic classification
   H3H 12D 13D 14A 14B
   14D 23F 6A 6B 6D 7B 7F
   8B 8E 8X AU GA
(56) Documents cited by ISA
   US, A, 4161725
   GB, A, 1367515
   SU, A, 758510
(58) Field of search by ISA
   INT CL H03K 13/02
   INT CL² H03K 13/02
   German 21a¹ 36/00
   US 340-347
   FR - Gr XII. CL?
   GB - 40(6)T; H3P; H3K
   CH - 66c
   AT - 21e
   AU - 04.6
   CA - 324
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(54) **Analog-to-digital converter**

(57) An analog-to-digital converter comprises amplifiers (2), an analog switch (3) connected with its inputs to the amplifiers (2) and a multistage comparison unit (4) receiving at its input the output signal from the switch (3). The converter further comprises a serial code translator (5) ensuring the translation of the parallel code coming from the unit (4) into a sequence of pulses sent to the input of a digital switch (6). The converter is provided with a reversible counter (7) and a counter (8), the inputs of both counters being connected to the commutator (6). The output signal from the counter (8) is sent to a code rollout-rollin unit (10) and to a code analyzing unit (9) which is connected through a register (13) to a scanning mode determining unit (12), the output signal from the unit (10) coming to the unit (12) and to an analog-to-digital converter (11) connected with its output to the input of the first amplifier (21). A control unit (18) presets a working algorithm of the said converter, so that in the course of direct conversion mode the process of conversion of the input analog value into a n-bits p-code takes place after K cycles, whereas in the course of metrological control mode bit numbers are determined, the deviation of metrological characteristics of which exceed admitted values.

FIG. 1

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