

ARGUMENTS TO THE WRITTEN OPINION

1. According to the Examiner's opinion claims 1 to 3 would not be novel in light of United States Patent No. 4,906,979 (Kimura) which discloses a watchdog circuit (2) that generates a warning signal (8) if the phase difference between an interrupt pulse (6) and a response pulse (5) from the microprocessor (1) exceeds a threshold value.

It cannot be denied that this known system has features which are similar or the same as the features in the system as claimed in Claim 1 of the present patent application. Both systems employ a microprocessor which generates a computed pulse train in response to the receipt of another input pulse train. The watchdog circuit compares the two pulse trains and generates a reset signal if something is wrong in the phase relationship of the two pulse trains.

However, there is a fundamental inventive difference between the system disclosed in United States Patent No. 4,906,979 and the system claimed in Claim 1 of the present application.

The watchdog circuit (2) of United States Patent No. 4,906,979 generates the input pulse train (6) for the microprocessor (1), which generated pulse train (6) is copied by the microprocessor (1). The watchdog circuit (2) compares the generated pulse train (6) with the copied pulse train (5). For this purpose the watchdog circuit (2) has one input for receiving the copied pulse train (5).

In the present application (see Fig. 1) the watchdog circuit (4) receives the same pulse train (P2) as the microprocessor (2) which makes a copy (P1) from the received pulse train (P2). So, in the present application both the microprocessor (2) and the watchdog circuit (1) receive a pulse train (P2) from an external source (6). The watchdog circuit (4) compares the original pulse train (P2) received from the external source (6) with the copied pulse train (P1) received from the microprocessor (2). For this purpose the watchdog circuit (4) has two inputs (12,16) for receiving the original pulse train (P2) and the copied pulse train (P1).

The difference, i.e. the feature that the watchdog circuit receives two input pulse trains, is clearly specified in the characterising portion of Claim 1 of the present application:

".....and the reset and watchdog circuit (4) is adapted to receive (12,16) the first pulse train (P1) and the second pulse train (P2) and to supply".

We think that the present wording of Claim 1 is adequate to make clear the differences between the cited prior art and the present invention, and therefore no amendments to Claim 1 are necessary in this respect.

In view of the above observations the Examiner's opinion with regard to the alleged lack of novelty is respectfully traversed. Since the cited document United States Patent No. 4,906,979 and also the other cited documents provide no suggestion or teaching which would guide a skilled person to the structure as claimed in Claim 1 of the present application, the subject-matter of Claim 1 involves in applicant's opinion an inventive step as well. The Examiner is therefore respectfully requested to review his Opinion regarding Novelty and Inventive step of Claims 1-3.

2. It is further observed that United States Patent No. 4,906,979 does not disclose a pulse train derived from the A.C. mains voltage. It is therefore not understood why Claim 2 is deemed not novel. The phrase "derived from the A.C. mains voltage" should be understood in the light of the description. From page 2, lines 16-18 and from Fig. 1 and its accompanying description it will be clear that "derived from" means: a pulse train made from the mains voltage by suitable reshaping and limiting of the mains sinusoidal voltage, thereby eliminating the need for a special oscillator. This feature is not disclosed in United States Patent No. 4,906,979. On the contrary, United States Patent No. 4,906,979 discloses and teaches a special oscillator (4), see col. 2, lines 63-67, for that purpose.