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SYNC VALIDITY DETECTION UTILIZING A MICROCOMPUTERAbstract of the Disclosure

A tuning system includes a microcomputer-based synchronization signal detector which does not require the use of a hardware timer/counter. The microcomputer (117) samples the output signal of a sync separator (111) coupled to an ordinary input/output port (143) during a number of different evaluation intervals to determine if respective characteristics of a valid sync signal occur. During one evaluation interval, a test is performed to determine if a "high" level is present for a time duration less than a given time duration (e.g., $10\mu\text{S}$) corresponding to the maximum duration of horizontal sync pulses. During another evaluation interval, a test is performed to determine if a "low" level is present for a time duration greater than another given time duration (e.g., $40\mu\text{S}$) corresponding to the minimum separation between horizontal sync pulses. The sampling intervals and evaluation intervals are established by the time required to execute instruction cycles.

FIGURE 2