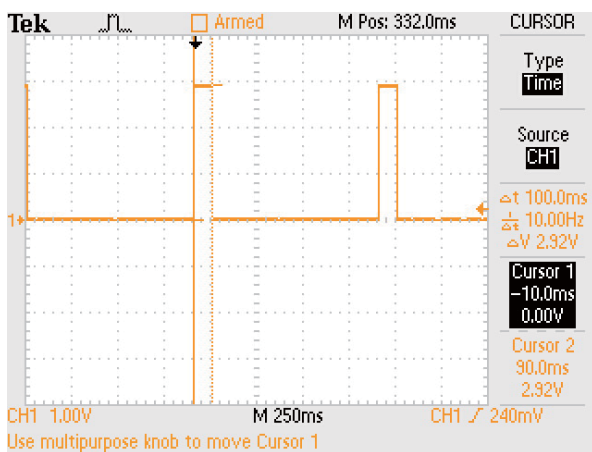
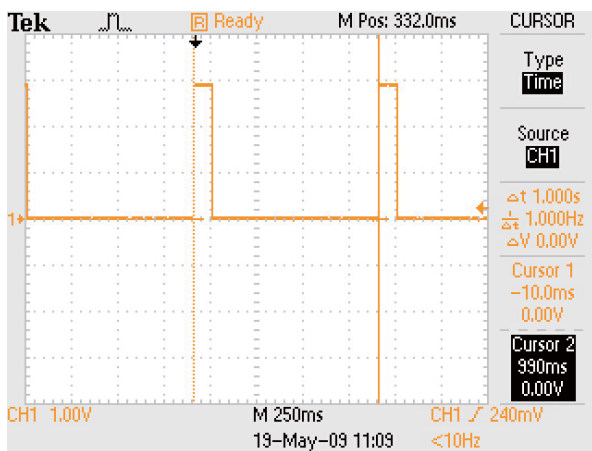


1 Pulse Per Second (Pulse duration is 100 ms/sec)


The Global Positioning System can also be used as a time reference for radio clocks, but require an accurate 1PPS output to be reliably used for time signals.

A Pulse per second (PPS) is an electrical signal that very precisely indicates the start of a second. PPS signals are output by various types of precision clock, including some models of GPS receivers. Depending on the source, properly operating PPS signals have an accuracy ranging from a few nanoseconds to a few milliseconds.

PPS signals are used for precise timekeeping and time measurement. One increasingly common use is in computer timekeeping, including the NTP protocol. Because GPS is considered a stratum-0 source, a common use for the PPS signal is to connect it to a PC using a low-latency, low-jitter wire connection and allow a program to synchronize to it: this makes the PC a stratum-1 time source. Note that because the PPS signal does not specify the time, but merely the start of a second, one must combine the PPS functionality with another time source that provides the full date and time in order to ascertain the time both accurately and precisely.