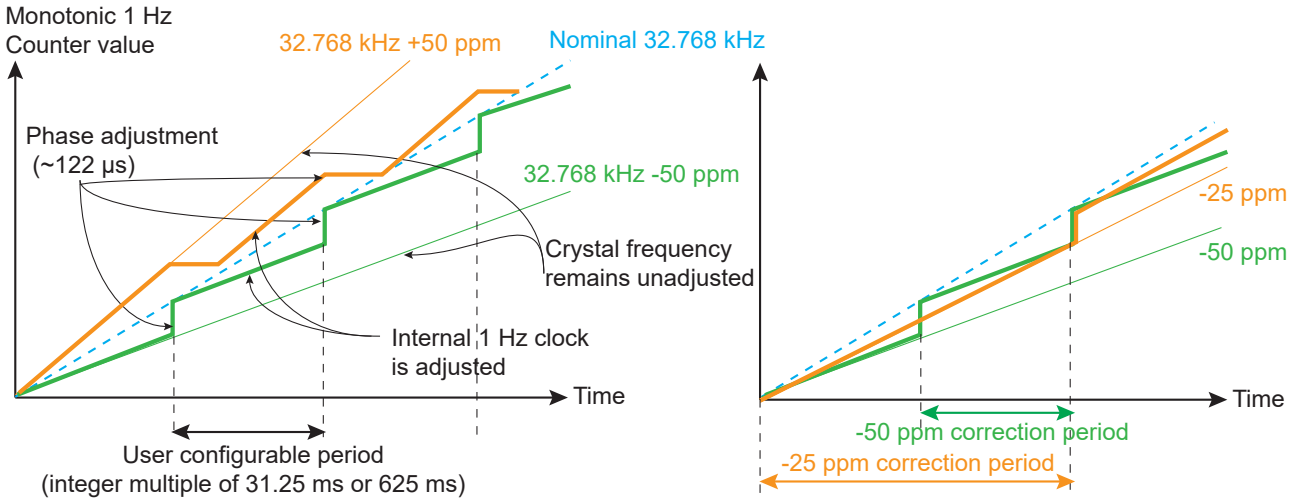
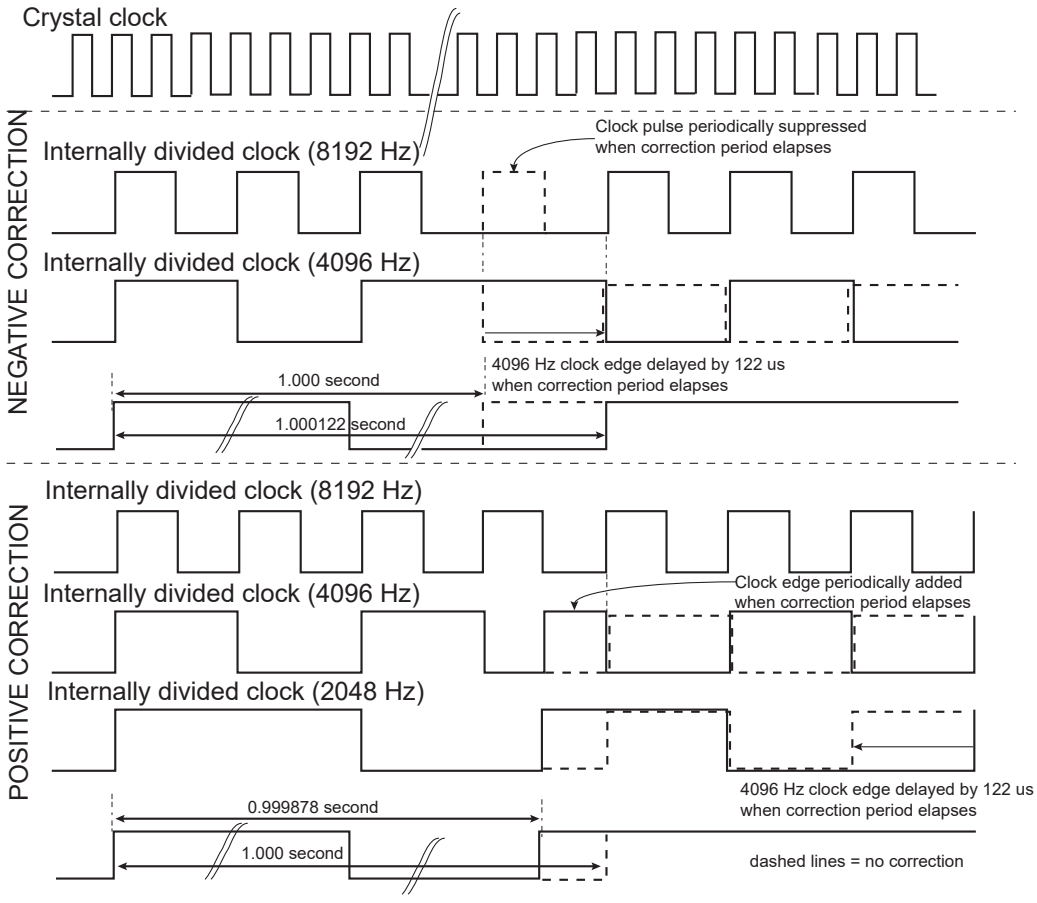

Monotonic 1 Hz
Counter value
32.768 kHz +50 ppm
Nominal 32.768 kHz
Phase adjustment
(~122 µs)
32.768 kHz -50 ppm
Crystal frequency
remains unadjusted
Internal 1 Hz clock
is adjusted
Time
User configurable period
(integer multiple of 31.25 ms or 625 ms)
-25 ppm
-50 ppm
Time
-50 ppm correction period
-25 ppm correction period


Crystal clock
NEGATIVE CORRECTION
Internally divided clock (8192 Hz)
Clock pulse periodically suppressed
when correction period elapses
Internally divided clock (4096 Hz)
4096 Hz clock edge delayed by 122 us
when correction period elapses
1.000 second
1.000122 second
POSITIVE CORRECTION
Internally divided clock (8192 Hz)
Internally divided clock (4096 Hz)
Clock edge periodically added
when correction period elapses
Internally divided clock (2048 Hz)
4096 Hz clock edge delayed by 122 us
when correction period elapses
0.999878 second
1.000 second
dashed lines = no correction