Variable Pulse Frequency Generator (70)

Circuit (70) of Figure (3-5) is a **multi pulse-frequency generator** which produces several clock pulses (*simultaneously*) **having different pulse-frequency** but maintaining a 50% duty cycle pulse (39) configuration, as illustrated in Figure (3-16).

Figure (3-5)

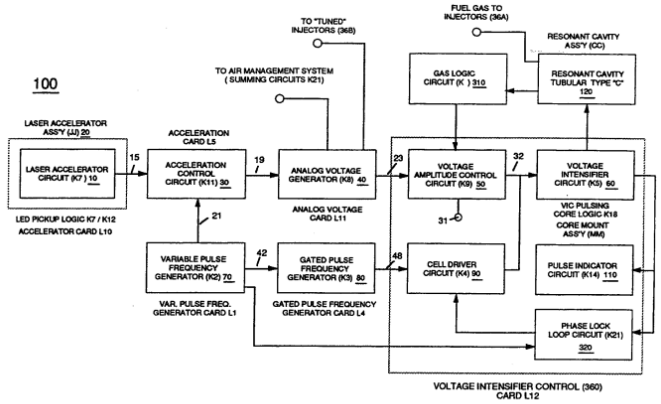

FIGURE 3-5: HYDROGEN GAS CONTROL CIRCUIT

Figure (3-16)

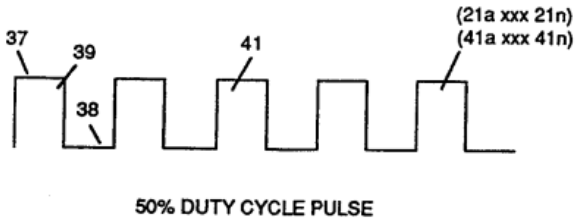

FIGURE 3-16: VARIABLE CLOCK PULSE TRAIN

Pulse on-time (37) and **pulse off-time** (38) are equally displaced to form **duty pulse** (39) which is duplicated in succession to produce **pulse train** (41) of Figure (3-16).

Increasing the number of duty pulses (39a xxx 39n) up to **pulse frequency range** of 10Khz or above now forms **clock signal** (21) of Figure (3-5) which, in turns, performs the scanning function of **Acceleration Control Circuit** (30) of Figure (3-5).

Circuit (70) also produces another independent and separate **clock signal** (41a xxx 41n) which is electrically transmitted to and become incoming **clock signal** (42) for **Gated Pulse Frequency Generator Circuit** (80) of Figure (3-5).

In both cases, pulse frequency range of each **clock signal** (21) and (42) can be altered or change (controlled independent of each other) to obtain peak performance of **Fuel Cell System** (100) of Figure (3-5).

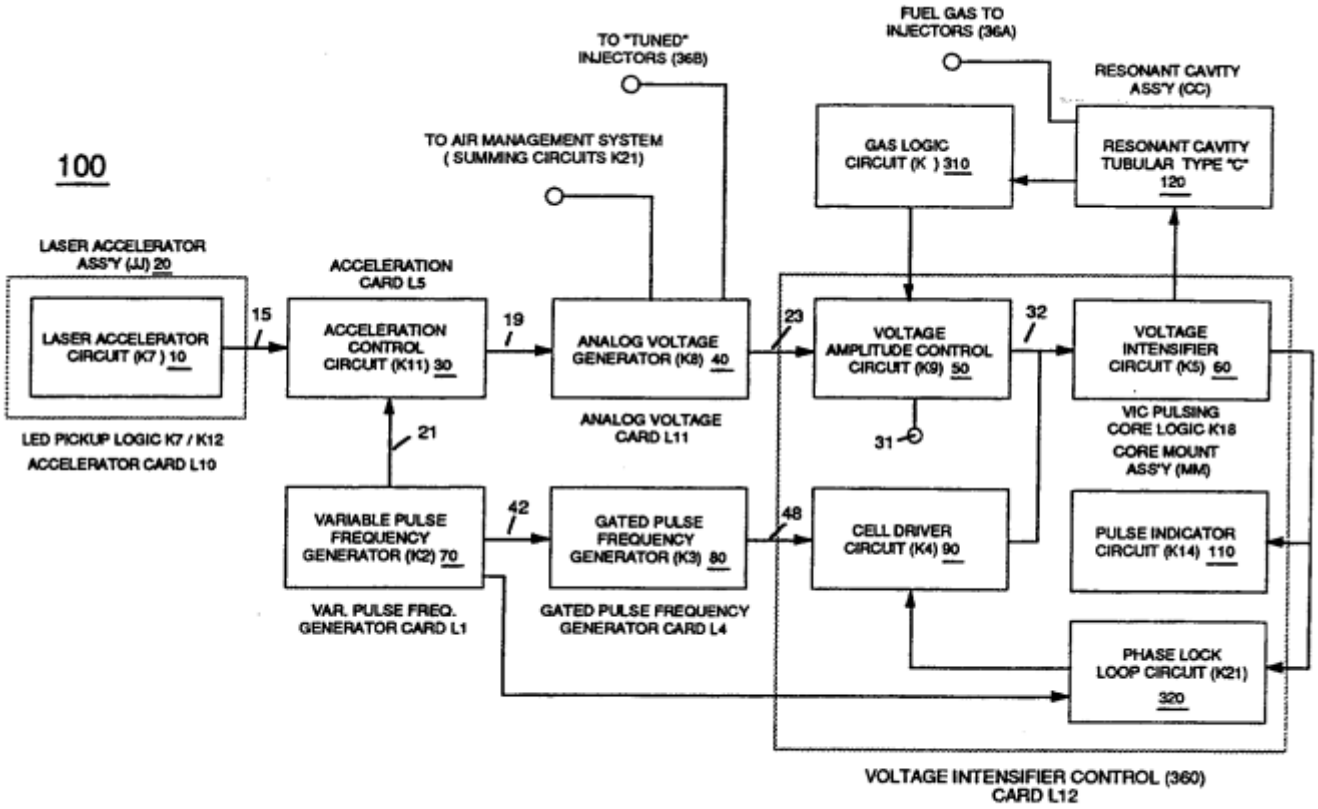

FIGURE 3-5: HYDROGEN GAS CONTROL CIRCUIT

Revision #2
Created 20 December 2023 04:38:20 by Chris Bake
Updated 21 December 2023 22:40:45 by Chris Bake