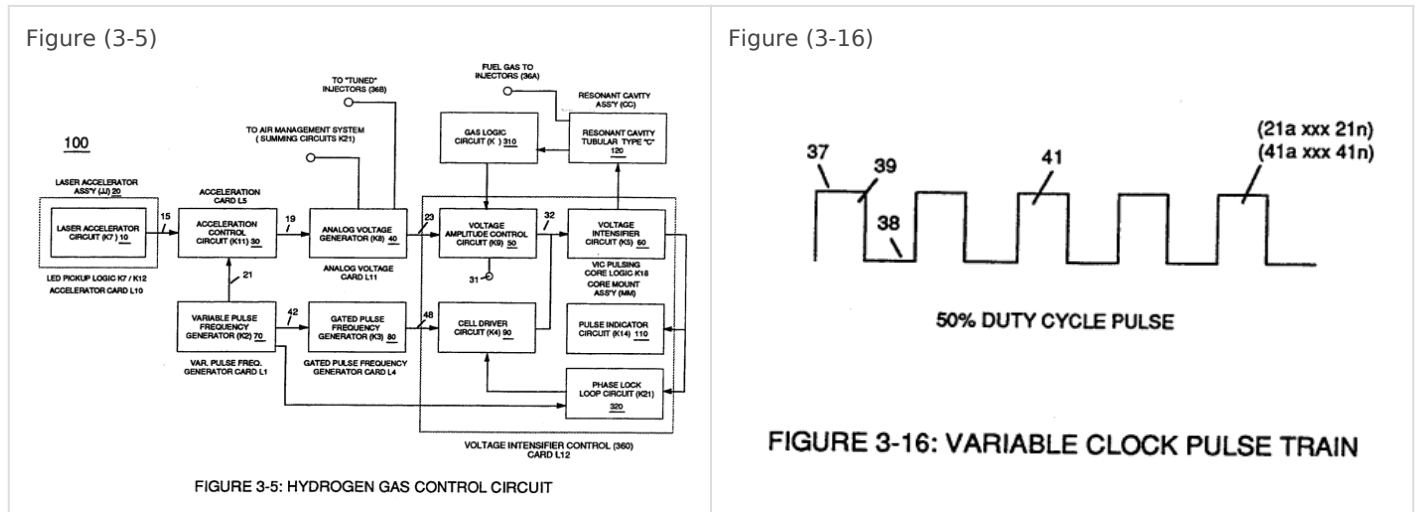


Variable Pulse Frequency Generator (70)

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).



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).

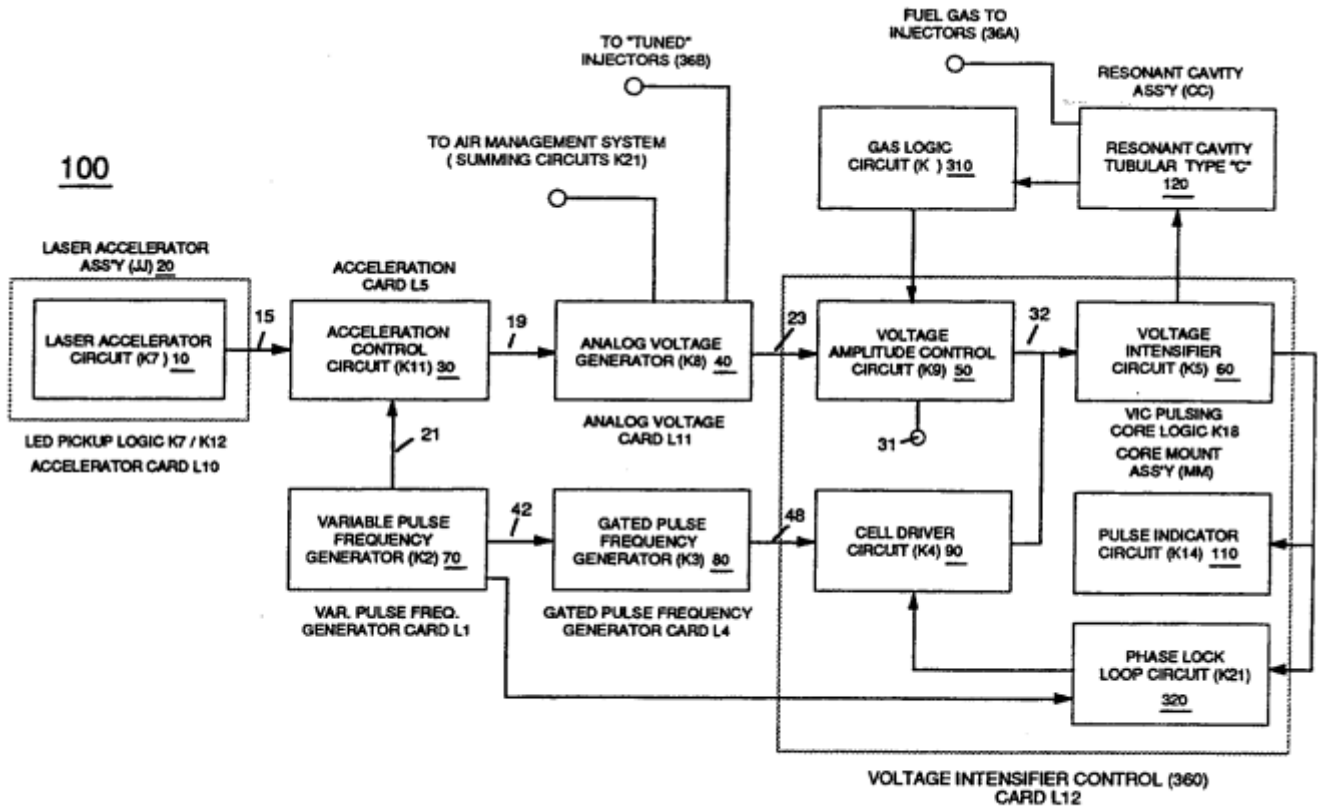


FIGURE 3-5: HYDROGEN GAS CONTROL CIRCUIT

Revision #2

Created 2023-12-20 04:38:20 UTC by Chris Bake

Updated 2023-12-21 22:40:45 UTC by Chris Bake