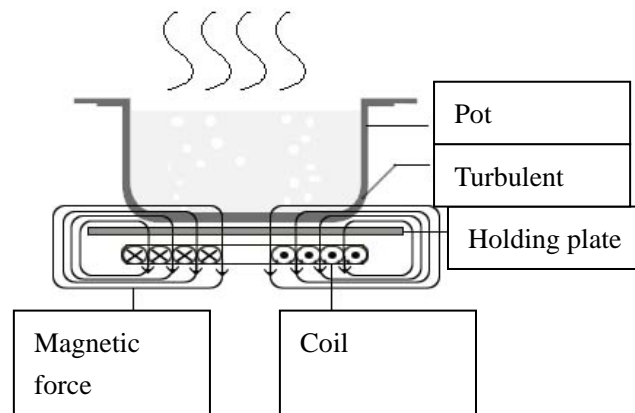
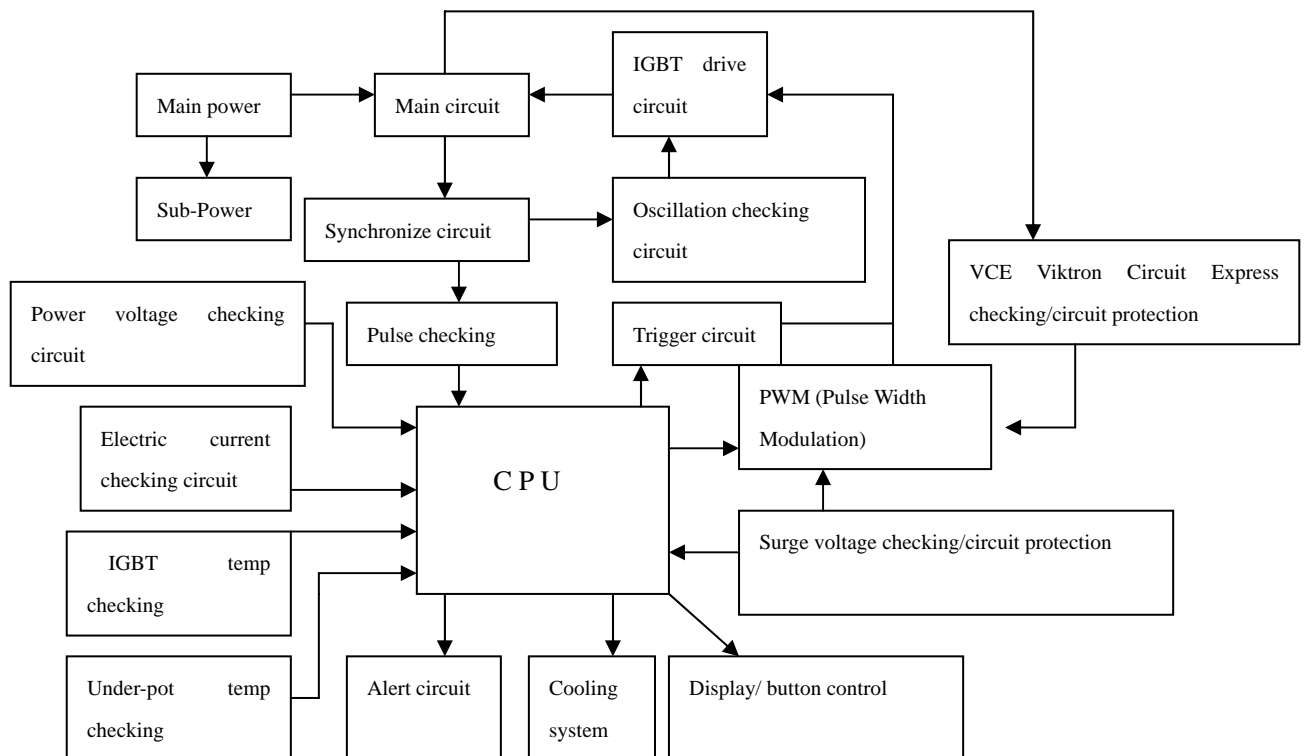


1. Theorem of IH heating



Induction cooktop is an appliance which transforms electromagnetic induction to be a heating power. By the rectifier circuit, induction cooktop transforms A. C. voltage to be D. C. voltage and change D. C. voltage to be a 20-40 KHz high frequency voltage through the control circuit. This high speed changes of voltage passes the coil will occur a high speed changing magnetic field. The magnetic force occur numerous swirls when it passes though ferromagnetic cookware and heating up the cookware for cooking.

1. Circuit diagram of Induction cooktop



2. Working process :

CPU provides the signal to IGBT and IGBT on. CPU will decide to let IGBT keep working by the Pulse circuit checking. If IGBT is working, the circuit system includes Main Circuit, Synchronize Circuit, Oscillation Checking Circuit, IGBT Drive Circuit will automatically control pass through or stop of IGBT.

Power voltage checking circuit and Electric current checking circuit will check with the voltage and electric current. And PWM Pulse Width Modulation will control the time of IGBT should get across. Then CPU will control the power output of whole system. VCE Viktron Circuit Express checking/circuit protection, Surge voltage checking/circuit protection, IGBT temperature checking, Under-pot temp checking are the ambient system to protect the whole system and working in normal. IGBT will automatically turn off if any error is detected by the ambient system. Then Alert Circuit will display the relevant information of the error. Cooling system is providing a normal working temperature for the system.