

Circuit Description

The PC ALL IN ONE ,which use the alternating current, it can be adjusted from AC 120V to DC 12V by external power adapter , and input to the machine by the port of 12V DC input , and then down to 3.3V ,5V -3.3V,-5V by DC POWER MODULE , supply the power to the motherboard of computer and A/D board . the power output and power close for DC POWER MODULE can be controlled by computer motherboard . the motherboard working power is suited to the ATX power standard , A/D board need 12V DC , and switch it into 12V , 5V ,3.3V ,1.8V to main chipset , amplifier ,inverter.Inverter function is that it can light up the panel, 12V DC is switched to 1600V AC, 2 seconds late, it output 600-1000V AC. the main chipset of A/D board can control the output voltage and voltage turn on/turn off, and protect if over-voltage and seeping-carry.When we press the power switch, DC power supply unit modules began to computer motherboards and A / D board equipment, power supply voltage is not stable at this time, the motherboard chipset to the CPU control the issue and maintain a RESET (re - set) signals, so that CPU initialization. When the power supply began to stabilize after the (of course, the process from unstable to stable is only a brief moment), will be removed RESET signal chip set, CPU immediately at the beginning from the address FFFF0H execution.A/D board, after receiving the power to carry out RESET MCU book value loaded, A/D board automatically working condition, LCD backlight has been lit, waiting for input.The computer board system BIOS boot code start POST (Power On Self Test), POST is mainly the detection system some of the key equipment for the existence and ability to work, such as memory and graphics cards. If not found there is a problem of memory or the memory, when the system BIOS audible through the loudspeaker to report error conditions. Then the system BIOS will find graphics card, BIOS, graphics card BIOS stored in ROM chip, usually starting address C0000H Department, the computer system BIOS calls to find it after the video card BIOS initialization code to complete the display by the graphics card BIOS initialization. Then the system BIOS looks for other devices of the BIOS program, find the same want to call them after the BIOS initialization code to initialize the house such equipment.When all other equipment to check BIOS, the system BIOS will display its own splash screen, this time Computer board "VGA OUTPUT" normal waveform output, A/D board "VGA INPUT" side, after receiving the waveform from the master chip waiting to enter the work state, through the ADC (analog-digital conversion signals) module, after processing into the output of flat-panel TVs SCALER module can accept flat-panel image display data formats,which the working frequency is 533Mhz, LCD flat-panel image display data received by the internal timing control electric swagger converted driven LCD screen display the correct video image. At this point the computer panel output information includes the type of system BIOS serial number and version number and so on. At the same time lower left corner of the screen will appear at the bottom of the motherboard information code that contains the date BIOS, motherboard chipset, model, motherboard identification code and vendor code.And then the system BIOS will detect the CPU type and operating frequency, and test results displayed on the screen. Then the system BIOS to start testing all of the memory capacity of the host and simultaneously displayed on the screen memory test values.The memory test, the system BIOS installed on the system will begin testing a number of standard hardware devices, these devices include: hard drives, CD-ROM, floppy drive, serial interface and parallel interface to connect devices.