

DVR 系列

用户手册

你现选用的产品型号为:

D V R - 9 2 1 4

D V R - 6 2 3 4 T

D V R - G 4 3 8 D

D V R - 9 4 5 G C - L

Rev:1.2

Date:2009.01

安全指导

01. 务必请仔细通读本安全指导.
02. 务必请妥善保管本手册,以备将来参考.
03. 请保持本设备的干燥.
04. 机箱的开口缝隙是用于通风避免机箱内的部件过热,请勿将此类开口掩盖或堵塞.
05. 在将本设备与电源连接前,请确认电源电压值,将电压调整为 110V/220V.
06. 请将电源置于不会被践踏到的地方,并且不要在电源线上堆置任何实物.
07. 插拔任何扩展卡或设备模块前,请将电源线拔下.
08. 请留意手册上提到的所有注意和警告事项.
09. 通电之前请确认主机箱中不要遗留螺丝等金属物件,以免电气短路烧毁其他部件.
10. 不得将任何液体倒入机箱开口的缝隙中,否则会产生严重损坏或电路瘫痪.
11. 如果发生以下情况, 请找专业人员处理:
 - a. 电源线或插头损坏
 - b. 液体渗入机器内
 - c. 机器暴露在潮湿的环境中
 - d. 机器工作不正常或用户不能通过本手册的指导使其正常工作
 - e. 机器跌落或受创
 - f. 机器有明显的破损迹象

商标声明

所有的品牌,产品,徽标,商标和公司名称都是属于商标或注册商标各自的拥有者。

AMI[®] 是 AMI 公司的注册商标。

Intel[®], Celeron[®], Pentium[®] 是 Intel 公司的注册商标。

Netware[®] 是 Novell Inc. 的注册商标。

PS/2 和 OS/2 是 International Business Machines 公司的注册商标。

Windows[®] 98/2000/NT/XP 和 Microsoft[®] 是 Microsoft 公司的注册商标。

目录

安全指导.....	2
商标声明.....	2
第一章 主板简介及规格说明.....	4
1.1 包装盒内物品清单.....	4
1.2 DVR主板特色.....	5
1.3 主板规格简述.....	5
1.4 主板LAYOUT 图及规格表.....	6
第二章 硬件设备的安装说明.....	18
2.1 中央处理器的安装.....	18
2.2 CPU风扇的安装.....	19
2.3 内存的安装.....	21
2.4 视频采集卡的安装.....	21
2.5 主板跳线的设定说明.....	23
2.6 主机板接头说明.....	23
第三章 BIOS 简介.....	31
3.1 BIOS升级更新.....	31
3.2 BIOS设定.....	31
3.3 BIOS语言切换.....	32
3.4 上电自动开机功能设置方法.....	32
第四章 看门狗软件介绍及安装.....	34
4.1 软件功能.....	34
4.2看门狗定义及工作原理.....	34
4.3软件安装.....	34
第5章 驱动程序的安装.....	35
4.1 芯片组驱动程序的安装.....	35
4.2 板载显卡驱动的安装.....	35
4.3 板载声卡驱动的安装.....	35
4.4 USB2.0驱动程序的安装.....	35

第一章 主板简介及规格说明

感谢您采用了我司的DVR系列主板,为了保证产品品质并适合市场需求,主板都通过了抗老化、低电压、各种温度、湿度环境下的反复测试,并通过市面多款主流视频采集压缩卡的兼容性测试,均能满足行业的需求。是兼顾性价比、稳定、寿命长的高规格主流平台解决方案,同时为了兼顾大部份海内外市场,我们专门提供了中英文两种语言的BIOS。本手册主要介绍了产品的规格参数及安装主板的步骤。需要更加详细的主板BIOS设置信息可参看驱动光盘中的BIOS设置用户手册。



由于主板规格和 BIOS 软件将不断更新,本手册之相关内容变更恕不另行通知,一切仅供参考,请以实际为准或留意网上公布的升级版本。

1.1 包装盒内物品清单

- 1.DVR-9214/DVR-6234T/DVR-G438D/DVR-945GC-L 主板
- 2.80-Conductor Ultra ATA 66/100 IDE 数据线
- 3.SATA 数据线
- 4.2x5 NC9 转 COM (DB9) 线*2 口(可选)
- 5.驱动光盘
- 6.质保卡
- 7.合格证
- 8.挡板

1.2 DVR 主板特色

随着科学技术的发展,特别是信息网络技术的飞跃,积极地促进了安防技术的发展,提高了安防行业的应用水平。DVR 监控市场经历了模拟时代、模数混合时代到现在的数字时代监控三大时期,正逐步向网络化、智能化、实用化、行业化方向发展,也由单一项目转成视频监控、防盗报警、周边防范、出入通道控制等综合的弱电工程。市场由工业嵌入式 DVR、PC 式 DVR 和 PC 嵌入式 DVR 三类产品占据,其中 PC 式 DVR 产品拥有成本低,增加速度更快等优势,整体需求量逐步加大,而 DVR 主机板作为 PC 式 DVR 产品中必需的部件,也同样成长迅速。

市场长期以来,一直停滞在 865 芯片时代,但是 865 芯片组所使用的 1 代 DDR 内存、AGP 显卡、SOCKET 478 架构 CPU 等这些已远远跟不上现在 PC 市场的发展,最终导致价格高、性能差等等,为了补足这一缺陷,满足现在客户的不同需要,所以我司 DVR 系列主机板采用 Intel G35、G31、945GC 等主流芯片组合出各种档次的产品,其主要特性如下:

- * 专业性: 所有接口都经过 EMI、静电保护、防雷、纹波过滤等特殊处理,为 DVR 行业量身定制。
- * 稳定性: 全部使用“FUJITSU”军工级固态电容;产品经过(温度: -20℃--75℃,湿度: 20%-95%RH)严格检验,确保全天候在高温、干燥、静电、寒冷、潮湿的环境中稳定运行。
- * 兼容性: 兼容市面上九成以上视频采集卡,支持 5 个 PCI 多达 40 路音视频采集;产品提供 4-8 个 SATA, 1-3 个 IDE 接口,可接高达 14 个硬盘,能够满足用户连续三个月以上的不间断数据采集。
- * 操控性: 产品支持来电开机、震铃开机、远程开机、故障重起等行业专有功能,中英文 BIOS 界面(F5 键自由切换),用户在无人看守、远近期操作上都非常方便。

1.3 主板规格简述

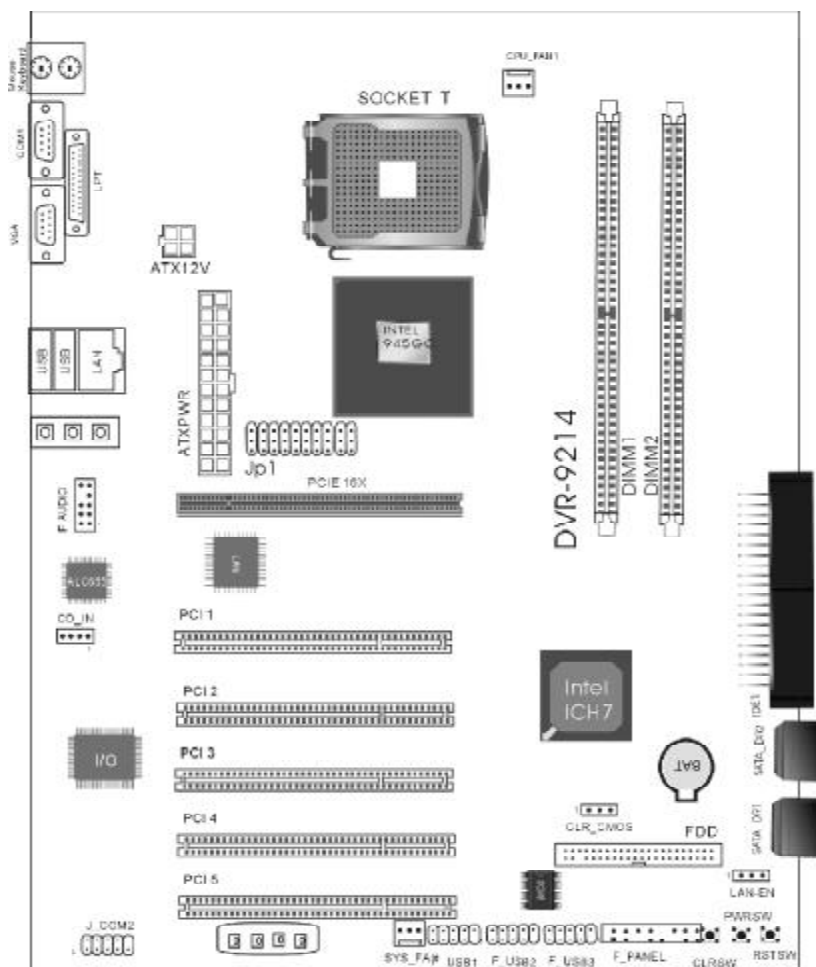
DVR-9214 是一款通用型工控 DVR 专用产品,其采用 INTEL 945GC 芯片,支持 2 个 COM 口,最大可外接 4 个 SATA 和 2 个 IDE 大容量硬盘

DVR-945GC-L 是一款通用型工控 DVR 专用产品,其采用 INTEL 945GC 芯片,支持 2 个 COM 口,最大可外接 4 个 SATA 和 2 个 IDE 大容量硬盘

DVR-6234T 是一款增强型 DVR 专用产品,其采用 INTEL 945GC 芯片,支持 2 个 COM 口,最大可外接 6 个 SATA 和 3 个 IDE 大容量硬盘,提供双 VGA 和 S 端口输出,适用对存储要求较高的用户

DVR-G438D 是一款豪华型 DVR 专用产品,其采用 INTEL G31 芯片,支持 2 个 COM 口,最大可外接 8 个 SATA 和 4 个 IDE 大容量硬盘,集成 GMA X3100 显示核心,适用于服务器 PC DVR,也可用于工控/商用 PC DVR。是一款全方位的 DVR 产品。

1.4 主板 LAYOUT 图及规格表

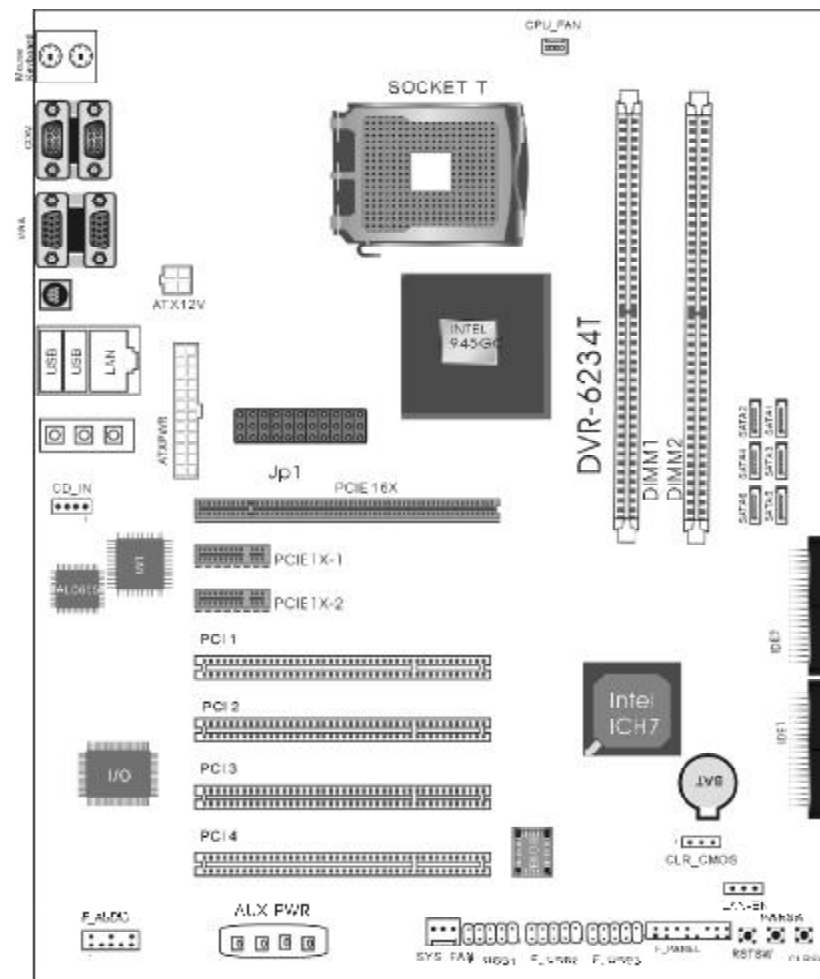


DVR-9214 主板布局图

DVR-9214 主板规格如下表:

处理器	--支持533/800/1066MHz前端总线 --支持 LGA 775 Intel® Core™ 2 Quad 6000 系列/Core™ 2 Duo E6000 系列/Core™ 2 DUO E4000 系列/Pentium® Dual-core E2000 系列/Celeron® Dual-core E1000 系列/Celeron® 400 系列/Pentium® D 系列/Pentium® 4 系列/Celeron® D 系列
芯片组	--北桥: Intel® 945GC --南桥: Intel® ICH7
内存	--支持双通道 DDRII 533/667 内存. --最大容量支持 2GB --内存插槽 2*DDR2 DIMM
板载显卡	--集成 GMA950 显示核心, 支持 DX9.0C
板载声卡	--集成 ALC 655 声卡芯片 --支持 2/4/5.1 声道输出
板载网卡	--集成 Realtek 8100C 10/100M 自适应网卡芯片, 支持无盘
存储标准	--4 个 SATA 300MB/s 接口, --1 个 IDE 接口, 可扩接 2 个设备,
扩展槽	--1 个 PCI Express 16X 插槽 --5 个 PCI 插槽
USB 接口	--8*USB 2.0 接口 (2 个后面板板载, 6 个扩展)

内部输入/出接口	--1 个 24 PIN 主电源接口 --1 个 4PIN 12V 电源接口、1 个辅助电源接口 --4 个 SATA 300MB/s 接口、1 个 IDE 接口 --1 个 CPU 风扇接口、1 个系统风扇接口 --1 组前面板插针 --1 个前置声卡插针 --3 组 USB 2.0 接口 --1 个 COM 插针 --1 个清除 CMOS 插针 --1 个板载网卡控制跳帽 --3 个快捷按钮 --1 个软驱接口 --1 组显示设备控制跳帽
后面板接口	--1 个 PS/2 键盘接口 --1 个 PS/2 鼠标接口 --1 个 COM 接口 --1 个 VGA 接口 --2 个 USB 接口 --1 个 RJ45 接口 --1 个打印接口 --3*JACK 接口
输入/输出控制器	--ITE8712F-S
硬件监测功能	--CPU 温度监控 --系统温度监控 --风扇转速监控 --各电压监控---可选
BIOS	--1*4Mbit flash --提供中英文双语言 BIOS 界面
主板结构及尺寸	--ATX 210mm x 305mm

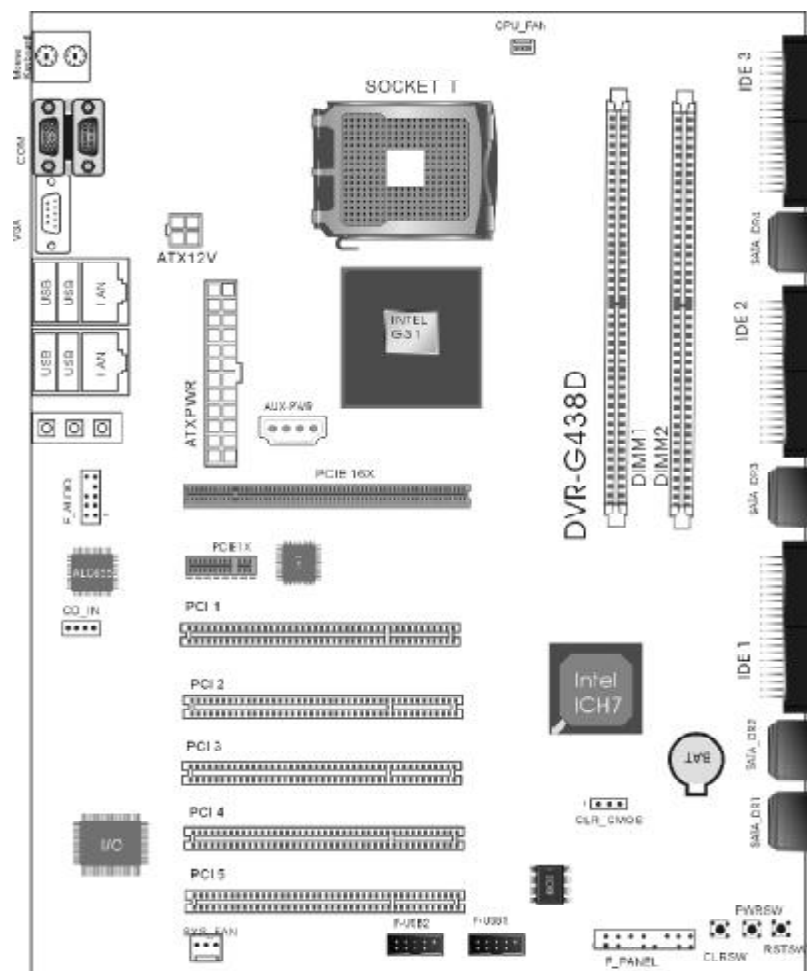


DVR-6234T 主板布局图

DVR-6234T 主板规格如下表:

处理器	--支持533/800/1066MHz前端总线 --支持 LGA 775 Intel® Core™2 Quad 6000 系列/Core™ 2 Duo E6000 系列/Core™ 2 DUO E4000 系列/Pentium® Dual-core E2000 系列 /Celeron® Dual-core E1000 系列 /Celeron® 400 系列/Pentium® D 系列 /Pentium® 4 系列/Celeron® D 系列
芯片组	--北桥: Intel® 945GC --南桥: Intel® ICH7
内存	--支持双通道 DDRII533/667 内存. --最大容量支持 2GB --内存插槽 2*DDR2 DIMM
板载显卡	--集成 GMA950 显示核心,支持 DX9.0C
板载声卡	--集成 ALC 655 声卡芯片 --支持 2/4/5.1 声道输出
板载网卡	--集成 Realtek 8100C 10/100M 自适应网卡芯片
存储标准	--6 个 SATA 300MB/s 接口, --2 个 IDE 接口,可扩接 3 个设备,
扩展槽	--1 个 PCI Express 16X 插槽 --2 个 PCI Express 1x 插槽 --4 个 PCI 插槽
USB 接口	--8*USB 2.0 接口 (2 个后面板板载, 6 个扩展)

内部输入/出接口	--1 个 24 PIN 主电源接口 --1 个 4PIN 12V 电源接口、1 个辅助电源接口 --6 个 SATA 300Mb/s 接口、2 个 IDE 接口 --1 个 CPU 风扇接口、1 个系统风扇接口 --1 组前面板插针 --1 个前置声卡插针 --1 组 CD-IN 插针 --3 组 USB 2.0 接口 --1 个清除 CMOS 插针 --1 个板载网卡控制跳帽 --3 个快捷按钮 --1 组显示设备控制跳帽
后面板接口	--1 个 PS/2 键盘接口 --1 个 PS/2 鼠标接口 --2 个 VGA 接口 --2 个 COM 接口 --2 个 USB 接口 --1 个 TV 接口 --1 个 RJ45 接口 --3*JACK 接口
输入/输出控制器	--ITE8712F-S
硬件监测功能	--CPU 温度监控 --系统温度监控 --风扇转速监控 --各电压监控---可选
BIOS	--1*4Mbit flash
主板结构及尺寸	--ATX 210mm x 305mm

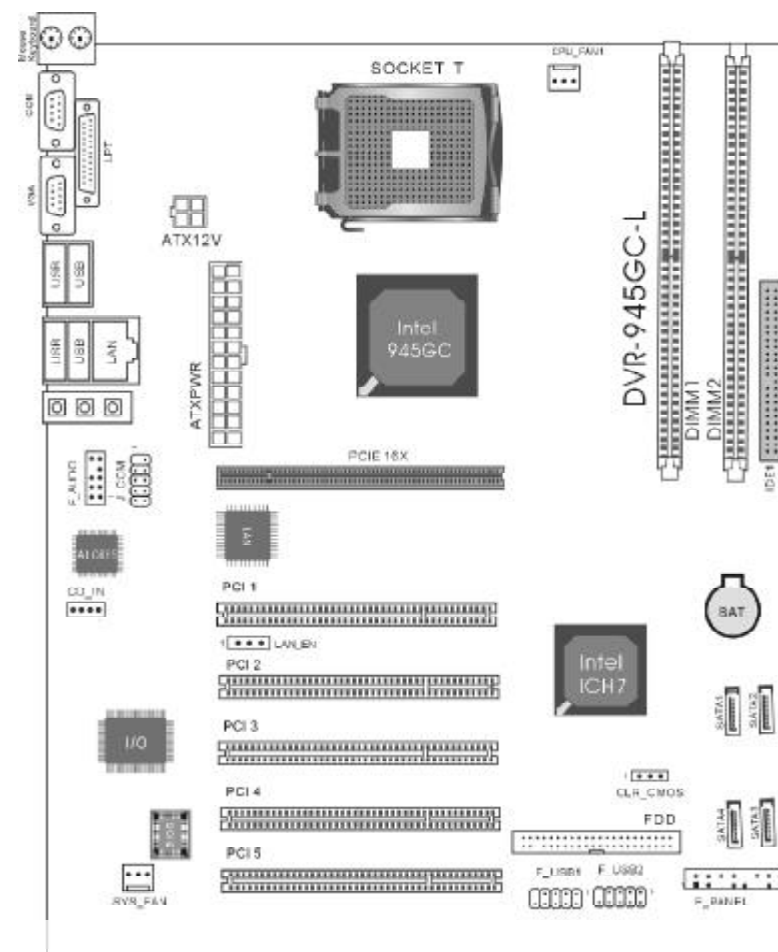


DVR-G438D 主板布局图

DVR-G438D 主板规格如下表:

处理器	--支持800/1066/1333MHz前端总线 --支持 LGA 775 Intel® Core™2 Quad 9000/6000 系列/Core™ 2 Duo E8000/E6000 系列/Core™ 2 DUO E4000 系列/Pentium® Dual-core E2000 系列 /Celeron® Dual-core E1000 系列/Celeron® 400 系列 /Pentium® D 系列/Pentium® 4 系列
芯片组	--北桥: Intel® G31 --南桥: Intel® ICH7
内存	--支持双通道 DDRII667/800 内存. --最大容量支持 4GB --内存插槽 2*DDR2 DIMM
板载显卡	--集成 GMA X3100 显示核心,支持 DX9.0C
板载声卡	--集成 ALC 655 声卡芯片 --支持 2/4/5.1 声道输出
板载网卡	--集成双 Realtek 8111C 100/1000M 自适应网卡芯片, 支持无盘
存储标准	--8 个 SATA 300MB/s 接口, --3 个 IDE 接口,可扩接 4 个设备,
扩展槽	--1 个 PCI Express 16X 插槽 --1 个 PCI Express 1x 插槽 --5 个 PCI 插槽
USB 接口	--8*USB 2.0 接口 (4 个后面板板载, 4 个扩展)

内部输入/出接口	--1 个 24 PIN 主电源接口 --1 个 4PIN 12V 电源接口、1 个辅助电源接口 --8 个 SATA 300MB/s 接口、3 个 IDE 接口 --1 个 CPU 风扇接口、1 个系统风扇接口 --1 组前面板插针 --1 个前置声卡插针 --2 组 USB 2.0 接口 --2 个 COM 插针 --1 个清除 CMOS 插针 --3 个快捷按钮
后面板接口	--1 个 PS/2 键盘接口 --1 个 PS/2 鼠标接口 --2 个 COM 接口 --1 个 VGA 接口 --4 个 USB 接口 --2 个 RJ45 接口 --3*JACK 接口
输入/输出控制器	-- ITE8712F-S
硬件监测功能	--CPU 温度监控 --系统温度监控 --风扇转速监控 --各电压监控----可选
BIOS	--1*8Mbit flash --提供中英文双语言 BIOS 界面
主板结构及尺寸	--ATX 210mm x 305mm



DVR-945GC-L 主板布局图

DVR-945GC-L 主板规格如下表:

处理器	--支持533/800/1066MHz前端总线 --支持 LGA 775 Intel® Core™2 Quad 6000 系列/Core™ 2 Duo E6000 系列/Core™ 2 DUO E4000 系列/Pentium® Dual-core E2000 系列 /Celeron® Dual-core E1000 系列 /Celeron® 400 系列 /Pentium® D 系列 /Pentium® 4 系列/Celeron® D 系列
芯片组	--北桥: Intel® 945GC --南桥: Intel® ICH7
内存	--支持双通道 DDRII533/667 内存. --最大容量支持 2GB --内存插槽 2*DDR2 DIMM
板载显卡	--集成 GMA950 显示核心,支持 DX9.0C
板载声卡	--集成 ALC 655 声卡芯片 --支持 2/4/5.1 声道输出
板载网卡	--集成 Realtek 8100C 10/100M 自适应网卡芯片, 支持无盘
存储标准	--4 个 SATA 300MB/s 接口, --1 个 IDE 接口,可扩接 2 个设备,
扩展槽	--1 个 PCI Express 16X 插槽 --5 个 PCI 插槽
USB 接口	--8*USB 2.0 接口 (2 个后面板板载, 6 个扩展)

内部输入/出接口	--1 个 24 PIN 主电源接口 --1 个 4PIN 12V 电源接口、1 个辅助电源接口 --4 个 SATA 300MB/s 接口、1 个 IDE 接口 --1 个 CPU 风扇接口、1 个系统风扇接口 --1 组前面板插针 --1 个前置声卡插针 --3 组 USB 2.0 接口 --1 个 COM 插针 --1 个清除 CMOS 插针 --1 个板载网卡控制跳帽 --3 个快捷按钮 --1 个软驱接口 --1 组显示设备控制跳帽
后面板接口	--1 个 PS/2 键盘接口 --1 个 PS/2 鼠标接口 --1 个 COM 接口 --1 个 VGA 接口 --4 个 USB 接口 --1 个 RJ45 接口 --1 个打印接口 --3*JACK 接口
输入/输出控制器	--ITE8712F-S
硬件监测功能	--CPU 温度监控 --系统温度监控 --风扇转速监控 --各电压监控----可选
BIOS	--1*4Mbit flash
主板结构及尺寸	--ATX 210mm x 305mm

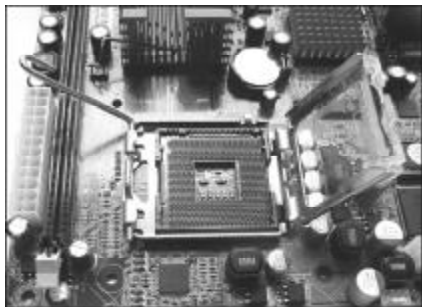
第二章 硬件设备的安装说明

2.1 中央处理器的安装

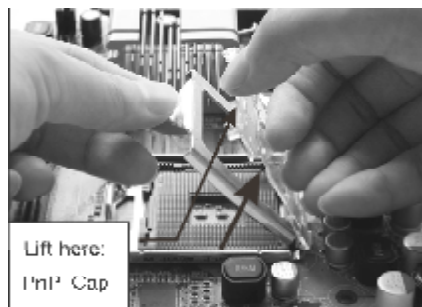
要安装 Intel 775 针 CPU，请按下面的步骤操作

~ 在你将 775 针 CPU 插入插槽之前，请检查 CPU 表面是否不洁或者插槽上是否有歪斜的针脚。如果发现以上情形，切勿强行将 CPU 插入插槽。否则 CPU 或插槽将会严重受损。

步骤一 将主板 CPU 插座侧边的固定拉杆拉起，转动拉杆至大约 135 度的完全打开位置。然后转动承载上盖至大约 100 度的完全打开位置。



步骤二 去除承载上盖的防护盖：用你的左手食指和拇指扶着承载金属框边缘，用右手拇指揭开防护盖便使它脱离插槽，同时按压防护盖的中央部分助力移除。



步骤三 卸下 CPU 保护盖，确认主板上特别设计的 Socket 底座的 2 个凸出位置及 CPU 的 2 个定位凹口位置方向对准后，将 CPU 轻轻平放入 Socket 中，如果两者方向未对准 CPU 将无法置入 Socket 中。请注意避免让 CPU 歪斜而造成针脚损坏。



步骤四 CPU 放置好后，盖回承载上盖，将拉杆压回，将承载上盖卡入拉杆的固定卡舌之下，固定住拉杆。CPU 的安装即完成。



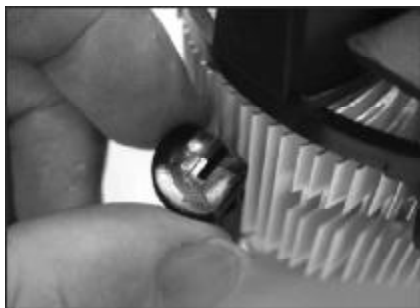
2.2 CPU 风扇的安装

为了 CPU 能正常工作，必须选用散热性能得到保证的散热器。这里我们以 Intel 的原装风扇为例，说明 CPU 风扇的安装过程。

步骤一 在安装风扇前检查一下风扇散热片底部是否涂有散热膏 (Intel 的原装风扇上一般带有导热材料 TIM)，如果您的风扇散热片底部没有导热材料，请在安装前在 CPU 上表面涂上适量散热膏。



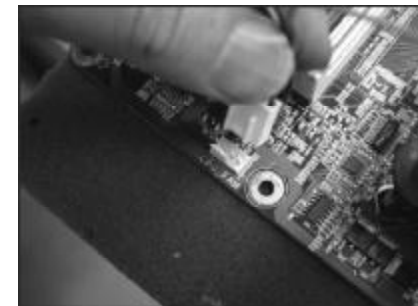
步骤二 请先卸下风扇电源线，将四个扣环的缺口转向内。



步骤三 确保将风扇电缆放在最靠近主板风扇电源插头的一侧，将散热器放在 LGA775 插座上，将四个扣件对准主板上的四个通孔，然后将散热器上的四个扣件按下扣紧。



步骤四 将风扇电源线接口插在主机板上标有“CPU FAN”的四线排针处。



2.3 内存的安装

主机板支持双通道内存，容量可从最小的 64MB 扩展至最大 4.0GB。

安装步骤如下：

- 将内存槽两端的白色卡棒向外扳开。
- 将内存条有金手指的那边对准内存槽，注意内存条的凹孔要对应插槽的凸起点。
- 将内存条插入插槽中。若安装正确则插槽两端的白色卡棒会因为内存条置入而自动卡紧，否则不会卡紧。



为了使系统稳定，请选用正牌内存。

2.4 视频采集卡的安装

视频采集卡分为 PCI 和 PCI E-1X 两种接口模式，安装采集卡时，请在对应的插槽内垂直插入并向下压紧，方向要正确，否则可能会损坏采集卡或主板的插槽。注：PCI 接口的采集卡只能接在主板的 PCI 插槽上，其不能插在 PCI E 插槽上；PCI E-1X 接口的采集卡可插在主板的 PCI-E 1X 插槽或 PCI-E 16X 插槽上面，其不可插在 PCI 插槽上，但是两种接口的采集卡不可以同时使用。

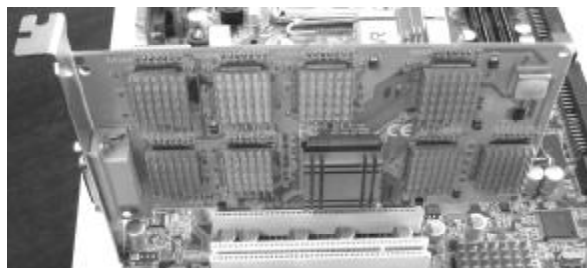


图 1: PCI 接口的采集卡插在 PCI 插槽上。



图 2: PCI E-1X 接口的采集卡插在 PCI-E 16X 插槽上



图 3 PCI-E-1X 接口的采集卡插在 PCI-E 1X 插槽上

2.5 主板跳线的设定说明

主板的所有跳线靠近直线或标有白色三角符处为第一脚，请务必不要接反，否则有可能对您的主机板或其他设备造成损坏。

2.5.1 清除 CMOS 跳线(CLR_CMOS)

如果主机板因为 BIOS 设置错误而出现问题，此时可清除 CMOS 解决问题:方法是在断开电源状态下把 CMOS 跳线跳至 2-3 脚，使其短接 5-6 秒。请不要在开机时清除 CMOS，要不然可能会损坏您的主板。跳线设定如下：

CMOS数据状态	CLR_CMOS
保持CMOS数据资料（预设）	1  3
清除CMOS数据资料	1  3

2.5.2 板载网卡控制跳帽 (LAN_EN)

主板提供 RTL8100C 网卡屏蔽跳线，用户可以通过此跳线来设定是否选用板载网卡，跳线设定如下：

集成网卡跳线选择	LAN_EN
可以使用集成网卡（预设）	1  3
关闭集成网卡	1  3

2.6 主机板接头说明

2.6.1 风扇电源接头(CPU_FAN1/SYS_FAN1)

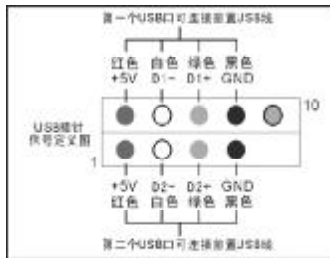
当将风扇连接到风扇连接头上时，使用者必须将红色的线连接到 +12V 的电源针上，黑色的线连接到地线上。如果您想在 BIOS 或硬件监控程序中观察风扇的工作状态，您必须使用支持能侦测转速功能的风扇。对于具有速度感应器的风扇，风扇每一次转动都会产生 2 个脉冲波，系统硬件监控将作统计逼供内产生一个风扇转动速度的报告,可在 CMOS 中显示出风扇的转速。



2.6.2 USB 扩展接头

主板提供 8 个 USB 接口，其中 2 个可以直接连接 USB 设备，F_USB1/F_USB2/F_USB3 连接头需要另外连接 USB Cable，提供给您另外 3 组 USB 端口，您能从主板经销商或电子市场上购买到此种 USB Cable 连接线。（小三角形处为第一脚，请务必不要接错，否则有可能对您的主板或设备造成损害）

~ 插针旁的“△”标识处为第一脚，请务必不要接错，否则有可能对您的设备或主板造成损害！



2.6.3 前置音效输出接口 (F_AUDIO)

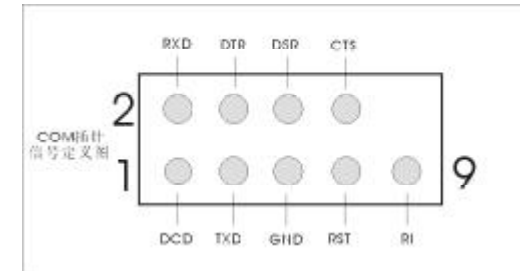
主板提供了前置音效输出接口 F_AUDIO，这组声卡插针供您连接到机箱前面板的声卡接头，这样您就可以很方便地经由主机到面板收听音乐和使用麦克风进行声音输入，您只要按照其插针功能（如下图所示）连接相对应的线即可。



PIN1: Mic in(麦克风输入信号)
 PIN2: Aud GND(模拟音频线路接地)
 PIN3: Mic VREF(麦克风电源)
 PIN4: Void(没连接)
 PIN5: FPOUT R(右声道声音信号输出)
 PIN6: RET R(右声道声音信号返回)
 PIN7: KEY(RSVD 耳机备用)
 PIN8: Void(没连接)
 PIN9: FPOUT L(左声道声音信号输出)
 PIN10: RET L(左声道声音信号返回)

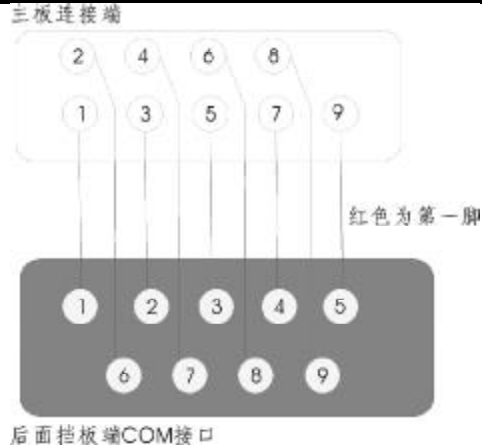
2.6.4 COM 插针 (COM1/COM2/COM3/COM4)

主机板提供 4 个 COM 插针，COM1/COM2/COM3/COM4 连接头需要另外连接 COM 连接线，您能从主板经销商或电子市场上购买到此种 COM 连接线。（白三角形标记处为第一脚，请务必不要接错，否则有可能对您的主板或设备造成损害）



2.6.5 COM 插针的接线方法

若要使用 COM 插针，必需通过转接线来实现，转接线的接线方法如下：



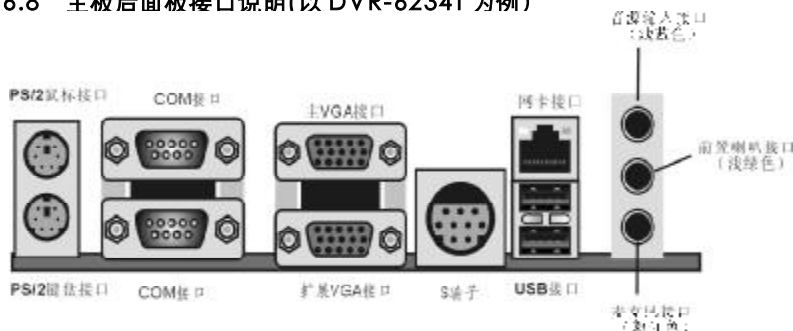
2.6.6 扩展IDE使用说明

IDE1 是由南桥引出的接口，为了满足用户需接多个 IDE 设备的需要，我们特意增加了扩展芯片，该芯片引出的接口为 IDE2/IDE3，在 BIOS 显示列表中只显示 IDE1 的设备，而 IDE2/IDE3 槽的设备不会显示出来，主引导盘应接在 IDE1 接口上

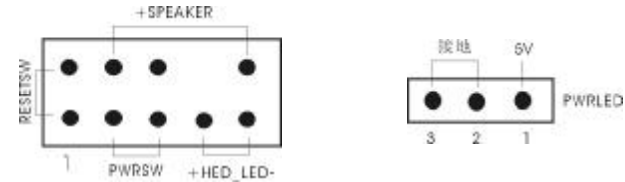
2.6.7 SATA 接口使用说明

SATA_DR1/DR2 是由南桥引出的接口，为了满足用户需接多个 SATA 设备的需要，我们特意增加了扩展芯片，该芯片引出的接口为 SATA_DR3/DR4，在 BIOS 显示列表中只显示 SATA_DR1/DR2 的设备，而 SATA_DR3/DR4 槽的设备不会显示出来，主引导盘应接在 SATA_DR1/DR2 接口上

2.6.8 主板后面板接口说明(以 DVR-6234T 为例)



2.6.9 系统信号 / 控制面板接口 (F_PANEL)



- a. SPEAKER 喇叭接头
- c. HD_LED 硬盘指示灯接头
- e. RESETSW 复位按钮
- b. PWRLED 电源指示灯
- d. PWRSW ATX 电源开关

a. SPEAKER 喇叭接头

电脑的喇叭接头(也称蜂鸣器)共有四个脚位，只要把机箱上的喇叭接头接至此四脚位上即可使用。

b. PWRLED 电源指示灯

电源指示灯为三个脚位的接头，用来指示电脑的工作状态，当电脑一旦上电时，指示灯常亮，反之，则不亮(注：有正负之分)。

c. HDD_LED 硬盘指示灯接头

这组两脚位排针连接到电脑机箱上的硬盘指示灯接头上，可由 LED 以显示硬盘工作的状态，如果硬盘一旦有读取动作，指示灯随即亮起(注：有正负之分)。

d. PWRSW ATX 电源开关

POWER SW 是一个两针脚的接头，控制着 ATX 主电源的总开关，将这组排针连接到电脑机箱上控制电脑电源的开关上，当两个针脚短接即可开(关)机。

e. RESET SW 复位按钮

这组两脚位排针接到电脑机箱上的 RESET 开关，可让您不需要关掉电脑电源即可重新启动系统，尤其在系统挡机或死机时特别有用。

2.6.10 JP1 跳线设置说明（仅针对 6234T/G438TD 机种介绍）

跳线设置表

跳线设置	接口		
JP1	电视接口（S端子）/扩展VGA	PCIE 16X 插槽	板载VGA
1-2 短接	不可用	PCIE X16/X1 设备	可用
2-3 短接	可用	PCIE X1 设备	可用

2.6.11 S 端子输出模式的设置方法（仅针对 6234T/G438TD 机种介绍）

步骤 1 线设置：依照 2-6-10 表，将 JP1 的 15 组排针的 2-3 脚短接

步骤 2 BIOS 设置：我们的 BIOS 默认值已经为 S 端子就可以使用，不需要客户做任何设置。BIOS 默认为可使用 S 端子和板载 VGA，扩展 VGA 不可用。

步骤 3 Windows 下多显设备的设置：进入操作系统，在桌面空白处点击鼠标右键，选择“图形属性”（如图 1），在弹出的窗口中选择“多屏显示”栏（如图 2）

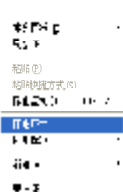


图 1



图 2

注意：1：请先安装完显卡驱动，否则无法调设

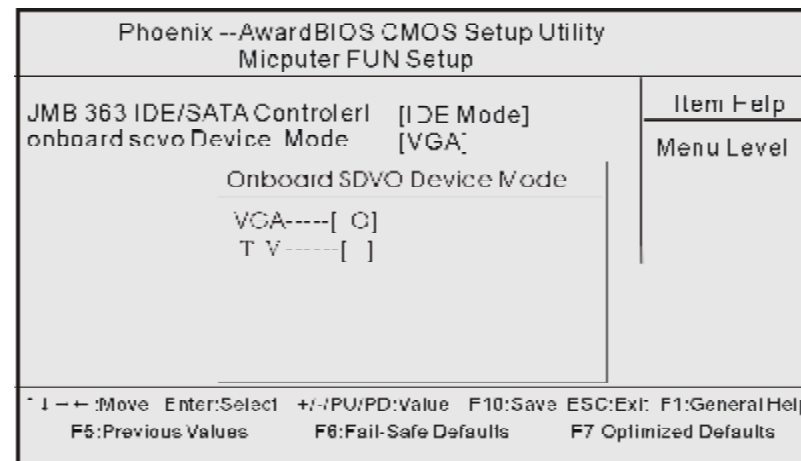
2：若同时接电视和板载 VGA，只有在 WINDOWS 下才可实现同屏显示（不可实现异步同显），DOS 下只能实现板载 VGA 的显示；若只接电视，则在 DOS 下、WINDOWS 下 S 端口都可显示。

3：S 端子为支持 SDTV/HDTV 的 9PIN 接口，此接口不可即插即用。当您的 S 端子线为非 9PIN 接口时，请采用专用转接线。

2.6.12 双 VGA 输出的设置方法（仅针对 6234T/G438TD 机种介绍）

步骤 1 跳线设置：依照 2-6-10 表，将 JP1 的 15 组排针的 2-3 脚短接

步骤 2 BIOS 设置：开机按 Delete 键进行 CMOS 中，找到“Micrputer Fun setup”选项中，将“onboard SDVO Device Mode”设置为 VGA，然后保存退出，此时两个 VGA 都可以使用，S 端子及 PCIE 16X 不可用。



步骤 3 Windows 下多显设备的设置：进入操作系统，在桌面空白处点击鼠标右键，选择“图形属性”（如图 1），在弹出的窗口中选择“多屏显示”栏（如图 2）

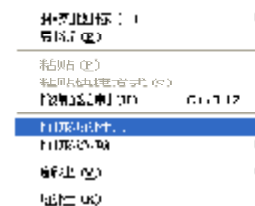


图 1

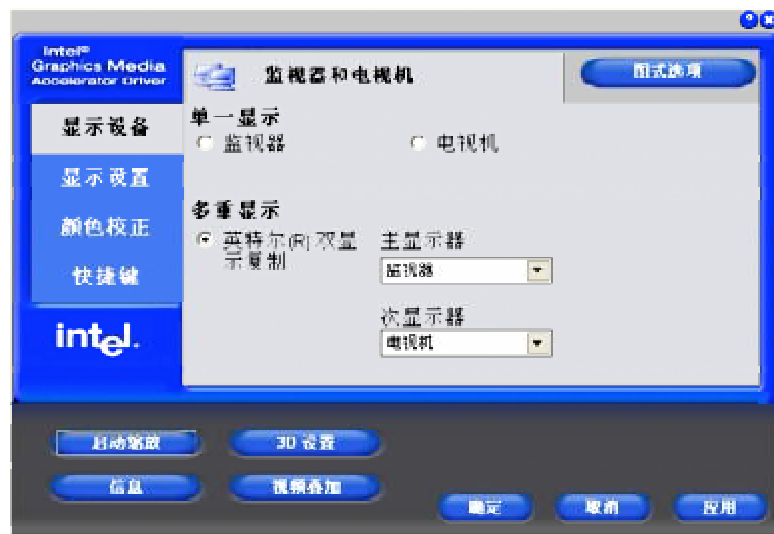


图 2

注意：1：请先安装完显卡驱动，否则无法调设

2.6.13 PCI E 16X 插槽的使用说明（仅针对 6234T/G438TD 机种介绍）

- 1: 当 JP1 的 15 组排针都设置为 1-2 短接时，此时 PCI-E 16X 插槽上可支持 PCIEX16、X8、X4、X1 设备（如显卡、网卡及采集卡等）
- 2: 当 JP1 的 15 组排针都设置为 2-3 短接时，此时 PCI-E X16 插槽上只可支持 PCI E X1 的输出，即使接上 X16 的设备，此时也只能工作在 PCIE X1 的带宽上。

第三章 BIOS 简介

3.1 BIOS 升级更新

为了满足客户的需要，我们特提供 WINDOWS 及 DOS 两个系统的 BIOS 刷新工具，具体操作方法如下：

3.1.1 DOS 下刷写方式

- a. 刷新工具：AFUDOS.EXE
- b. 刷新方法：准备一张 DOS 启动盘，只含三个最基本的 DOS 启动文件即可，将 AMI BIOS 刷新工具和 BIOS 文件拷贝到这张软盘/U 盘根目录下，使用此软盘/U 盘开机引导系统，进到 DOS 后输入 AFUDOS 空格 BIOS 文件名空格/P 空格/B 空格/N 空格/C 空格/X 回车，此时进行 BIOS 刷写过程，当刷写完毕后会有相关提示时，此时才可重启电脑，按 F1 键进入 CMOS 设置，选择 Load Optimal Defaults

3.1.2 WINDOWS 下刷写方式

- a. 刷新工具：AFUWIN.EXE
- b. 刷新方法：在 WINDOWS 下运行 AFUWIN.EXE--- 点击 OPEN--- 选择要对应的 BIOS 文件 --- 勾选 Program ALL Blocks 后点击 FLASH，此时进行刷写 BIOS 过程，刷写过程中键盘鼠标为锁定状态，当刷写完成后键盘鼠标恢复使用，此时重启电脑按 F1 键进入 CMOS 设置，选择 Load Optimal Defaults



BIOS 刷写存在风险，请在专人指导下进行刷写，并留意以下两点：

1. BIOS 文件要与实际产品型号相符
2. BIOS 在刷写过程中请勿非法关机 / 重启电脑

3.2 BIOS 设定

请注意由于 BIOS 的不断更新，可能我们说明的部分或许与现有板上 BIOS 有些不同，一切仅供参考，以实际为主。BIOS 中一些未做过多说明的项目，属于非常用项目请保持缺省值，建议不要随意更改。

欲进入 BIOS 设定程序画面，请依下列步骤：

- a. 打开电源或重新启动系统，在自检画面可看到“PRESS DEL TO RUN SETUP”
- b. 按下 DEL 键后，即可进入 BIOS 设定程序。

DVR MOTHERBOARD Safety Steady Reliable	
BIOS功能键说明	
按 键	功能说明
←→ 键	选择设置项目(左右移动)
↑↓ 键	选择设置项目(上下移动)
+ - 键	改变设定状态,或者变更键位之数值
Tab 键	改变设定状态
ESC 键	退出设置程序并不存储设置
F1功能键	显示目前设定项目的相关辅助说明
F7功能键	放弃程序的修改
F8功能键	载入安全模式的默认值
F9功能键	载入出厂预设优化值
F10功能键	退出设置程序并存储设置

3.3 BIOS 语言切换

为了让更多的用户能够熟悉并对 BIOS 操作，我们特别推出中文和英文两种语言 BIOS，用户只需要进入 CMOS 后按“F5”就可以轻松进行中文和英文 BIOS 之间的切换，让 BIOS 操作不再神秘。(注：为了解 BIOS 设置程序的详细资料，请查阅光盘里的用户手册 PDF 文档)

3.4 上电自动开机功能设置方法

虽然电力方面比较发达，不会像以前那样经常性的停电，但是偶尔发生突然断电的情况还是有可能的。一旦 DVR 机器由于断电而关机，而 DVR 机房又无人值守，监控录像会因此而中止，给安防带来隐患。为此，为了避免这一隐患，我公司特意为 DVR 产品定制了断电后来电自动开机功能，此功能实现的方式需要特别的硬件电路设计及 BIOS 软件来支持，具体 BIOS 设置方法如下：

开启 DVR 主机后按 DEL 键进入 CMOS 设置界面中。在主菜单中请您选择“高级配置 \SUPER I/O 设置”，出现如下图，您可以根据需要设置不同的选项。

CMOS 菜单设定 - 微控智能.		Safety Steady Reliable
SuperIO设置		
配置ITE8712 IO芯片		帮助项目
软驱控制器	[打开]	允许BIOS打开或者关闭软驱控制器.
交换软盘驱动器盘符	[关闭]	
串口 1 地址	[3F8/IRQ4]	
串口 1 模式	[标准]	
串口 2 地址	[2F8/IRQ3]	
串口 2 模式	[标准]	
串口 3 地址	[3E8/IRQ10]	
串口 4 地址	[2E8/IRQ11]	
并口地址	[378]	
并口模式	[标准]	
并口中断请求	[IRQ7]	
上电自动开机设置	[之前状态]	
←→:移动 Enter:选择 +/-:数值 F10:保存并退出 ESC:退出 F1:帮助 F5:中英文切换 F7:放弃保存 F8:加载默认值 F9:加载优化值		

注：BIOS 中三个选项功能说明，默认值为“之前状态”

常开：断电后，供电恢复就会自动开机；

常关：断电后，供电恢复不会自动开机；

之前状态：断电后是否上电开机，决定于主机之前状态。当断电前主机是开机状态，供电恢复时主机会自动启动；当断电前主机是关机状态，供电恢复时主机不会自动开机。

第四章 看门狗软件使用说明及安装步骤

(仅限 DVR-6234T 产品)

DVR 机器长时间一直工作在高温、干燥的机房中,受多方面因素影响,可能会偶尔发生死机的现象。一旦系统由于意外故障导致死机,而 DVR 机房又是无人值守的,此时监控便会因机器死机而中止,这给安防带来很大的隐患。为此,我司特为用户研发了解决这一困扰的软件——市场上俗称“看门狗”,它的工作原理是通过配合主板上专门设计的硬件电路可以实现 DVR 系统死机后自动重启功能。

4-1 软件功能

系统状态监控,一旦系统死机,“看门狗”软件将发出复位信号,触发硬件电路自动复位,令系统重启并重新加载视频监控软件。这样 DVR 机房即使无人值守机器又出现死机的情况下监控录像也不会中止,让安防不留死角。

4-2 看门狗定义及工作原理

看门狗,又叫 watchdog timer,是一个定时器电路,一般有一个输入,叫喂狗,一个输出到 MCU 的 RST 端,MCU 正常工作的时候,每隔一段时间输出一个信号到喂狗端,给 WDT 清零,如果超过规定的时间不喂狗,(一般在程序跑飞时),WDT 定时超过,就回给出一个复位信号到 MCU,是 MCU 复位。防止 MCU 死机。看门狗的作用就是防止程序发生死循环,或者说程序跑飞。

工作原理:在系统运行以后也就启动了看门狗的计数器,看门狗就开始自动计数,如果到了一定的时间还不去看门狗,那么看门狗计数器就会溢出从而引起看门狗中断,造成系统复位。所以在使用有看门狗的芯片时要注意清看门狗。

4-3 软件安装

打开光盘,进入到 MB\Watchdog 目录下,双击 Setup 进行安装,按照提示一直点击“下一步”,直至提示“完成”时点击完成,此时机器会重启,待重启后 Watchdog 开始启用(在状态栏会有相关图片显示)

注:1. 该软件请运行在: windows98/2000/xp/server2003 32 位操作系统下

2.请在系统管理员的权限下安装该软件!

第五章 驱动程序的安装

该板支持 WINDOWS2K 及以上系统,各系统软件不一,我们附带光盘里提供 2K/XP/VISTA 系统的驱动,现安装说明仅以 2K/XP 系统为例

4.1 芯片组驱动程序的安装

- 进入驱动光盘 MB\INF 目录,若是 945 芯片组的则鼠标左键双击"945INF.exe";若是 G31/G35 芯片组则鼠标左键 双击"infinst_autol.exe"
- 鼠标点击安装界面上"下一步"按钮。
- 点击"是",再点击"下一步"。
- 安装完成后,在重新启动选项中选择"是"然后按"完成"重新启动计算机,之后驱动程序自动加载。

4.2 板载显卡驱动的安装

- 进入驱动光盘 MB\VGA\945 目录,鼠标左键双击"WIN2k_xp1417.exe". (G31 目录: MB/VGA/G31/WIN2K_XP "SETUP.EXE";
- 鼠标点击安装界面上"下一步"按钮。
- 点击"是",再点击"下一步"。
- 安装完成后,在重新启动选项中选择"是"然后按"完成"重新启动计算机,之后驱动程序自动加载。

4.3 板载声卡驱动的安装

- 进入驱动光盘 MB\SOUND 目录,鼠标左键双击"WDM_A379.EXE".
- 按照提示,点击"下一步",接着再点击"仍然继续";
- 安装完成后,在重新启动选项中选择"是"然后按"完成"重新启动计算机,之后驱动程序自动加载。

4.4 USB2.0 驱动程序的安装

主机板需要安装 Windows XP 以上的版本,在您安装好 Windows XP/2003 等版本的操作系统后请更新 Microsoft 最新的补丁程序,一般此时系统就可以识别您的 USB2.0 设备了.万一不行您还可以到网站上去下载 USB2.0 驱动程序(是一个 EXE 可执行文件),双击这个程序后就可以按提

DVR SERIES

User's Manual

Products Model:

D V R -9214

D V R -6234T

D V R -G438D

D V R -945GC-L

Rev:1.2

Date: January 2009



Safety Instructions

1. Always read the Safety Instructions carefully.
2. Keep this manual for future reference.
3. Please keep the equipment away from humidity.
4. The openings on the chassis are for air convection hence protect the equipment from overheating. Do not cover the openings.
5. Make sure the voltage of the power supply is appropriate and adjust it to 110/220V before connect the equipment to the power source.
6. Place the power cord such a way that people can not step on. Do not place anything over the power cord.
7. Always unplug the power cord before inserting any add-on card or module.
8. All cautions and warnings in the manual should be noted.
9. Before connect to the power supply, make sure there are not screws and other metal objects left to avoid electrical short circuit that can destroy other parts.
10. Never pour any liquid into the opening, or else it would make serious damage or circuit paralysis.
11. If in the following situations, please find professionals:
 - a. the power cord or plug damaged
 - b. liquid poured into the machine
 - c. The equipment exposed to moisture
 - d. The equipment does not work properly and the user can not find guidance in this manual to solve the problem
 - e. The equipment has been dropped or damaged
 - f. Obvious signs of breakage damage have been found

Copyright Statement

All brands, products, logos, trademarks and company names are registered trademarks belong to their respective owners.

AMI[®] is the registered trademark of AMI.

Intel[®], Celeron[®], Pentium[®] are registered trademarks of Intel.

Netware[®] is the registered trademark of Novell Inc.

PS / 2 and OS / 2 are registered trademarks of International Business Machines Co. Ltd.

Windows[®] 98 / 2000/NT/XP and Microsoft[®] are registered trademarks of Microsoft.



Contents

Safety Instructions.....	37
Copyright Statement.....	37
Chapter 1 Motherboard Specifications.....	39
1.1 Box Contents	39
1.2 DVR Motherboard Features.....	40
1.3 Motherboard Introduction.....	41
1.4 Motherboard Layout and Specification.....	41
Chapter II Hardware Installation	54
2.1 Install CPU	54
2.2 Install CPU fan	55
2.3 Install Memory.....	57
2.4 Install Video Capture Card.....	57
2.5 Motherboard Jumper.....	59
2.6 Motherboards Interfaces.....	60
Chapter III BIOS Introduction.....	67
3.1 BIOS updates.....	67
3.2 BIOS Setup.....	67
3.3 BIOS Language Switch	68
3.4 Power On Automatic Restore Setting.....	68
3.5 Dual VGA Output Settings.....	69
3.5 TV Output Mode Settings.....	69
Chapter IV Watchdog Introduction.....	70
4.1 Software Function.....	70
4.2 The definition and working.....	70
4.3 software installation.....	71
Chapter V Drivers Installation	72
5.1 Install Chipset Driver.....	72
5.2 Install Onboard VGA Driver.....	72
5.3 Install Onboard Audio Codec Driver.....	72
5.4 Install USB2.0 Driver.....	72

Chapter 1 Motherboard Specifications

Thank you for using the DVR series *motherboards*, in order to guarantee product quality and suit to market demand, motherboards undergo anti-aging, low voltage, various of temperature, humid environment repeated testing, they have pass the compatibility testing with various Video Capture Card in the the market, they can meet the needs of industry with the advantages of cost-effective, stability, longevity, high-quality. Meanwhile, in order to take into account most market both at home and abroad, we provide Chinese-English bilingual BIOS . The Guide introduces the installation steps of the motherboard. Please refer to the BIOS settings user manual in the CD-ROM for more detailed information.



As motherboard and BIOS software would be update constantly, relevant content of the manual may change without further notice, all the information are for reference purposes only, please pay attention to the actual objects and the upgraded version in the Internet publication.

1.1 Box Contents

1. DVR-9214/DVR-6234T/DVR-G438D /DVR-945GC-L motherboard
2. 80 - Conductor Ultra ATA 66/100 IDE cable
3. SATA cables
4. 2x5 NC9 to COM(DB9) cable*2 holes(optional)
5. user' s manual (optional)
6. CD-ROM
7. warranty card
8. Certification card
9. Baffle

1.2 DVR Motherboard Features

The development of science and technology, especially the network technology development, promoted the development of security technologies, enhanced the application level of the Security Industry. DVR monitor market experienced simulated era, Digital signal and analog signal era, signal monitoring era. It gradually develops to be networking, intelligentize, practical, professional. It is no longer a single item but comes to be video monitor, anti-theft alarm, perimeter prevention and entrance control comprehensive project. Market occupied by the industrial embedded DVR, PC-DVR and PC embedded DVR products. PC-DVR products provided with low cost, high speed and other advantages, their demand gradually increasing. As the necessary component of PC-DVR, DVR motherboards is also growing rapidly. For a long time, the market has been in the stagnation of 865 chip times, but the 865 chipset use 1 generation DDR memory, AGP graphics card, SOCKET 478 CPU architecture, which are all old-fashioned and eventually lead to high price, poor performance, etc. In order to make up for these deficiency and meet the different needs of customers, the DVR Series motherboards use Intel G35, 945GC mainstream chip to provide a combination of various grades of products. Their main features are as follows:

- * Professional: All interfaces are made with EMI, static electricity, mine, wave protection, they are specialized for the DVR industry.
- * Stability: All use "FUJITSU" military-level solid capacitance; Products undergo rigorous (temperature: -20°C - 75 °C, Humidity: 20% -95%HD) testing to ensure stable operation no matter at high temperature, dry, static electricity, cold, wet environment.
- * Compatibility: The products are compatible with more than 90% video capture cards in the market, support 5 PCI up to 40 audio and video channel collection, 4-8 SATA, 1-3 IDE slots up to 14 hard disk to satisfy users for more than three months uninterrupted data collection.

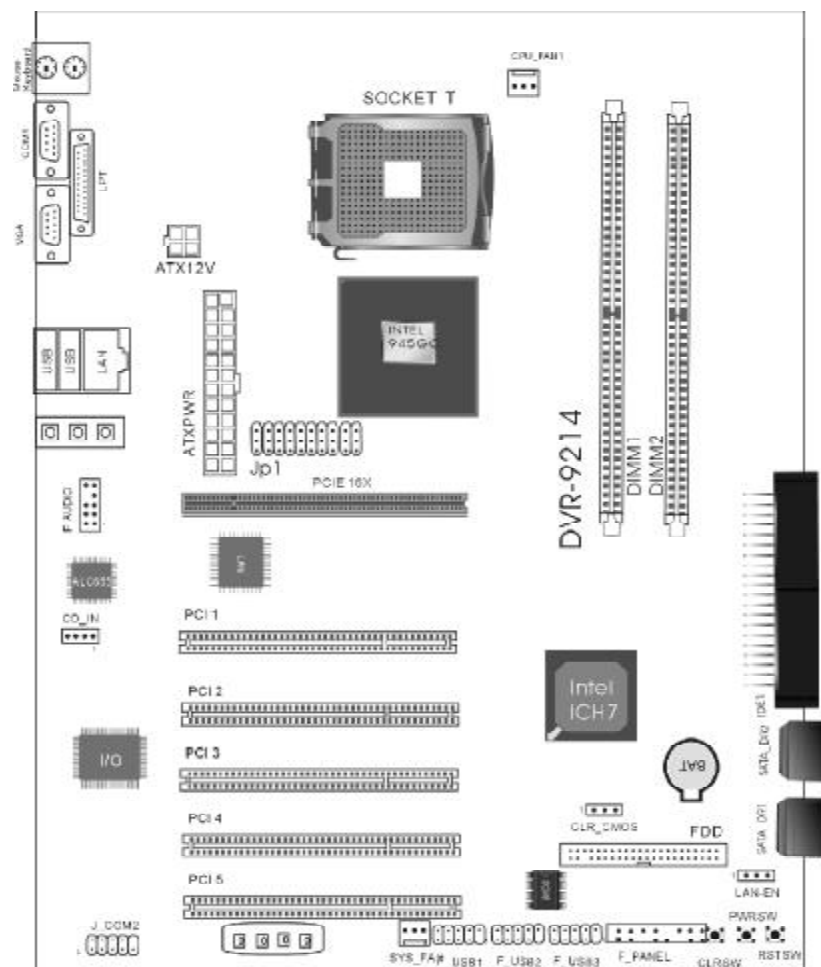
1.3 Motherboard Introduction

DVR-9214 is a dedicated universal DVR product, it use the INTEL 945GC chipset, supports two COM ports, four SATA and two IDE large-capacity hard disks.

DVR-6234T is a luxurious DVR product, it use INTEL 945GC chipset, support two COM ports, six SATA ports and three IDE large-capacity hard disks, dual VGA and TV / AV output ports. It applies to users who demand for higher storage performance.

DVR-G438D is a super luxurious DVR product which includes all the functions of DVR-9438D. It use INTEL G31 chipset, support two COM ports, eight SATA ports and four IDE large-capacity hard disks, It integrate GMA X3100 graphics card. It can be used in server/IPC/ commercial PC DVR. It is a comprehensive DVR product.

1.4 Motherboard Layout and Specification

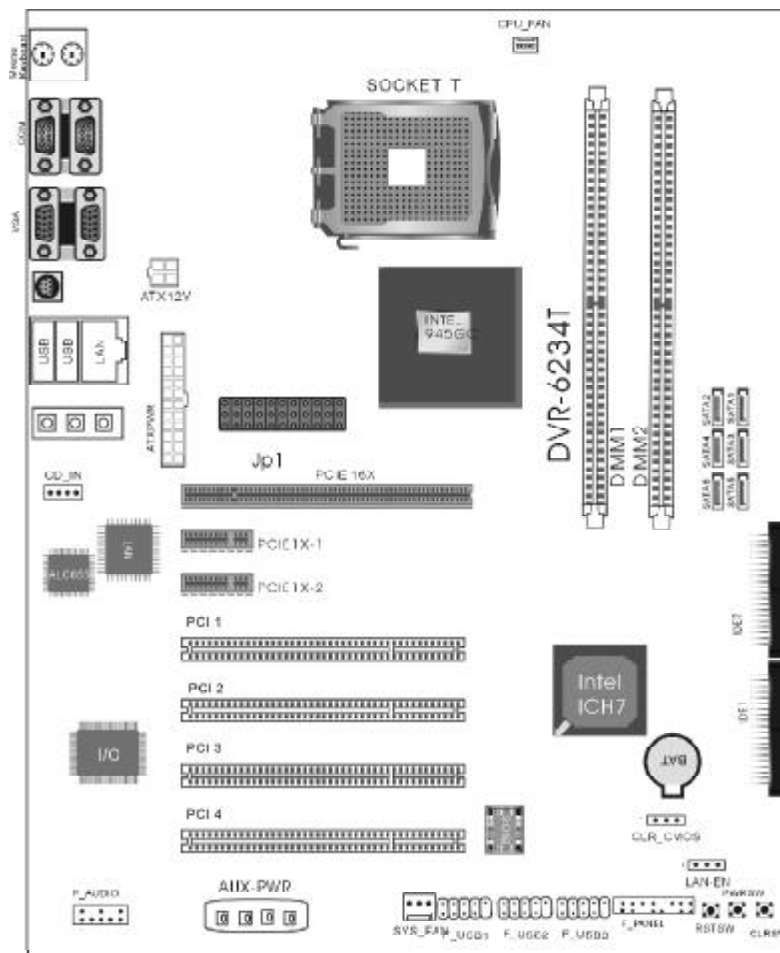


DVR-9214 Layout

DVR-9214 Specifications:

DVR - 9214	
CPU	* Supports 533/800/1066MHz Front Side Bus * Supports LGA 775 Intel® Core™ 2 Quad 6000/Core™ 2 Duo E6000/Core™ 2 DUO E4000/Pentium® Dual-core E2000/Celeron® Dual-core E1000/Celeron® 400/Pentium® D/Pentium® 4/Celeron® D Series.
Chipsets	* North Bridge: Intel® 945GC * South Bridge: Intel® ICH7
Memory	* Supports DDRII 533/667 Memory * Up to 2GB * 2*DDR2 DIMM
Graphics	* Integrated GMA950 Graphics Card, Supports DX9.0C
Audio	* Integrated ALC 655 Audio Codec * Supports 2/4/5.1 Channel Audio-out
LAN	Integrated Realtek 8100C 10/100M Lan chip, supports Non-harddisk system
Storage Interface	* 4*SATA 300MB/s ports * 1*IDE, up to 2 IDE devices
Expansion Slots	* 1*PCI Express 16X * 5*PCI
USB	8*USB 2.0 ports (2 on the back panel, 6 connected to the internal USB header via the USB Cable)

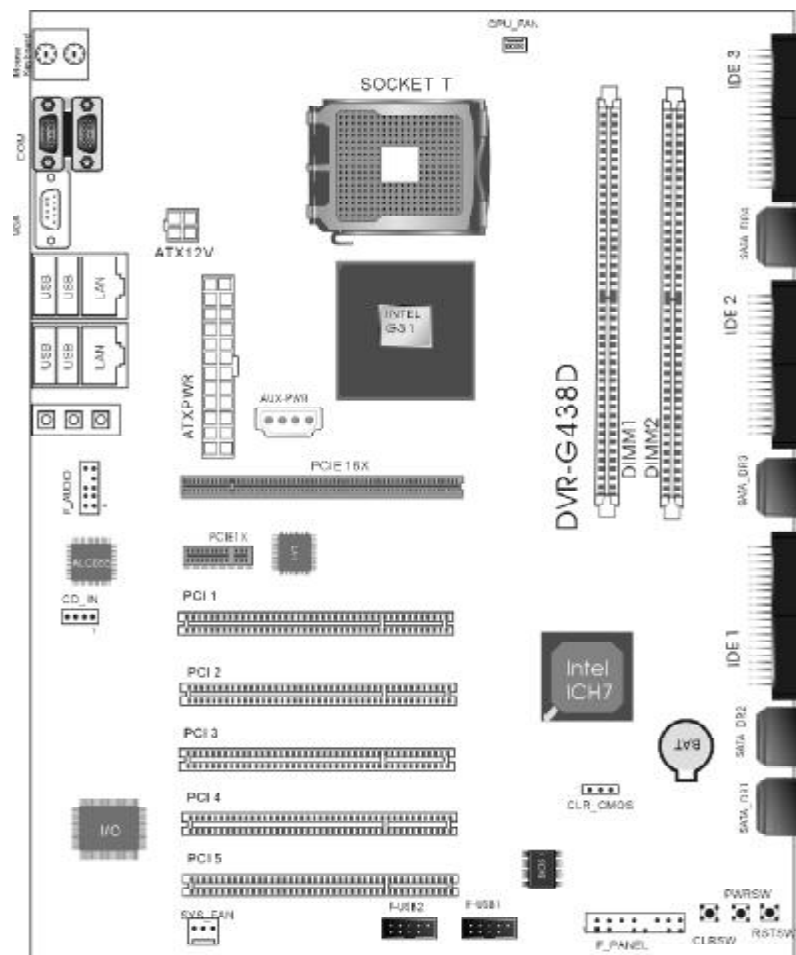
Internal I/O Connectors	* 1*24 PIN main power connector,1*4PIN 12V power connector,1*assistant power connector * 4*SATA 300MB/s connectors,1*IDE * 1*CPU fan header,1*system fan header * 1*front panel header * 1*front panel Audio header * 3*USB 2.0 headers * 1*COM header * 1*Clearing CMOS jumper * 1*LAN_EN jumper * 3*Switchs * 1*FDD * 1*video control jumper
Back Panel Connectors	* 1*PS/2 keyboard port * 1*PS/2 mouse port * 1*COM port * 1*VGA port * 2*USB ports * 1*RJ45 port * 1*LPT port * 3*JACKs
I/O Controller	ITE8712F-S
H/W Monitoring	* CPU/System temperature detection * CPU/System/Power fan speed detection * System voltage detection(optional)
BIOS	* 1*4Mbit flash * Provide Chinese-English bilingual BIOS interface
Form Factor	ATX 210mm x 305mm



DVR-6234T Layout

DVR-6234T	
CPU	* Supports 533/800/1066MHz Front Side Bus * Supports LGA 775 Intel® CoreTM2 Quad 6000/CoreTM 2 Duo E6000/CoreTM 2 DUO E4000/Pentium® Dual-core E2000/Celeron® Dual-core E1000/Celeron® 400/Pentium® D/Pentium® 4/Celeron® D Series.
Chipsets	* North Bridge: Intel® 945GC * South Bridge: Intel® ICH7
Memory	* Supports DDRII 533/667 Memory * Up to 2GB * 2*DDR2 DIMM
Graphics	* Integrated GMA950 Graphics Card, Supports DX9.0C
Audio	* Integrated ALC 655 Audio Codec * Supports 2/4/5.1 Channel Audio-out
LAN	Integrated Realtek 8100C 10/100M Lan chip, supports Non-harddisk system
Storage Interface	* 6*SATA 300MB/s ports * 2*IDE, up to 4 IDE devices
Expansion Slots	* 1*PCI Express 16X * 2*PCI Express 1X * 4*PCI
USB	8*USB 2.0 ports(2 on the back panel, 6 connected to the internal USB header via the USB Cable)

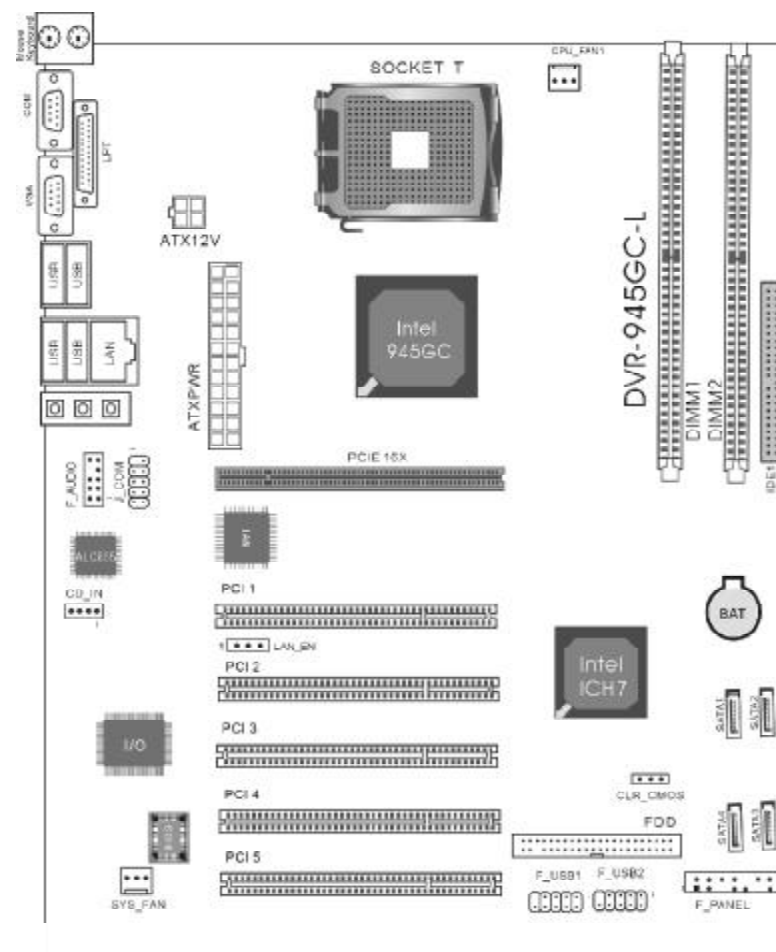
Internal I/O Connectors	* 1*24 PIN main power connector, 1*4PIN 12V power connector, 1*assistant power connector * 6*SATA 300MB/s connectors, 2*IDE * 1*CPU fan header, 1*system fan header * 1*front panel header * 1*front panel Audio header * 3*USB 2.0 headers * 4*COM headers * 1*Clearing CMOS jumper * 1*LAN_EN jumper * 3*Switches * 1*CD-IN header * 1*video control jumper
Back Panel Connectors	* 1*PS/2 keyboard port * 1*PS/2 mouse port * 2*COM headers * 2*VGA ports * 2*USB ports * 1*RJ45 port * 1*TV port * 3*JACKs
I/O	ITE8712F-S
H/W Monitoring	* CPU/System temperature detection * CPU/System/Power fan speed detection * System voltage detection(optional)
BIOS	* 1*4Mbit flash * Provide Chinese-English bilingual BIOS interface
Form Factor	ATX 210mm x 305mm



DVR-G438D Layout

DVR-G438D	
CPU	* Supports 800/1066/1333MHz Front Side Bus * Supports LGA 775 Intel® CoreTM2 Quad 9000/6000/CoreTM 2 Duo E8000/E6000/CoreTM 2 DUO E4000/Pentium® Dual-core E2000/Celeron® Dual-core E1000/Celeron® 400/Pentium® D/Pentium® 4 Series.
Chipsets	* North Bridge: Intel® G31 * South Bridge: Intel® ICH7
Memory	* Supports DDRII 667/800 Memory * Up to 4GB * 2*DDR2 DIMM
Graphics	* Integrated GMAX3100 Graphics Card, Supports DX9.0C
Audio	* Integrated ALC 655 Audio Codec * Supports 2/4/5.1 Channel Audio-out
LAN	Integrated Realtek 8111C 100/1000M Lan chip, supports Non-harddisk system
Storage Interface	* 8*SATA 300MB/s ports * 3*IDE, up to 4 IDE devices
Expansion Slots	* 1*PCI Express 16X * 1*PCI Express 1X * 5*PCI
USB	8*USB 2.0 ports (4 on the back panel, 4 connected to the

Internal I/O Connectors	* 1*24 PIN main power connector,1*4PIN 12V power connector,1*assistant power connector
	* 8*SATA 300MB/s connectors,3*IDE
	* 1*CPU fan header,1*system fan header
	* 1*front panel header
	* 1*front panel Audio header
	* 2*USB 2.0 headers
	* 2*COM headers
	* 1*Clearing CMOS jumper
	* 3*Switchs
Back Panel Connectors	* 1*PS/2 keyboard port
	* 1*PS/2 mouse port
	* 1*VGA ports
	* 2*COMports
	* 1*TV/AV port
	* 4*USB ports
	* 1*RJ45 port
	* 3*JACKs
I/O Controller	Dual-ITE8712F-S
H/W Monitoring	* CPU/System temperature detection
	* CPU/System/Power fan speed detection
	* System voltage detection(optional)
BIOS	* 1*4Mbit flash
	* Provide Chinese-English bilingual BIOS interface
Form Factor	ATX 210mm x 305mm



DVR-945GC-L Layout

DVR-945GC-L	
CPU	* Supports 533/800/1066MHz Front Side Bus
	* Supports LGA 775 Intel® CoreTM2 Quad 6000/CoreTM2 Duo E6000/CoreTM2 DUO E4000/Pentium® Dual-core E2000/Celeron® Dual-core E1000/Celeron® 400/Pentium® D/Pentium® 4/Celeron® D Series.
Chipsets	* North Bridge: Intel® 945GC
	* South Bridge: Intel® ICH7
Memory	* Supports DDRII 533/667 Memory
	* Up to 2GB
	* 2*DDR2 DIMM
Graphics	* Integrated GMA950 Graphics Card, Supports DX9.0C
Audio	* Integrated ALC 655 Audio Codec
	* Supports 2/4/5.1 Channel Audio-out
LAN	Integrated Realtek 8100C 10/100M Lan chip, supports Non-harddisk system
Storage Interface	* 4*SATA 300MB/s ports
	* 1*IDE, up to 2 IDE devices
Expansion Slots	* 1*PCI Express 16X
	* 5*PCI
USB	8*USB 2.0 ports(2 on the back panel, 6 connected to the internal USB header via the USB Cable)

Internal I/O Connectors	* 1*24 PIN main power connector, 1*4PIN 12V power connector, 1*assistant power connector
	* 4*SATA 300MB/s connectors, 1*IDE
	* 1*CPU fan header, 1*system fan header
	* 1*front panel header
	* 1*front panel Audio header
	* 3*USB 2.0 headers
	* 1*COM header
	* 1*Clearing CMOS jumper
	* 1*LAN_EN jumper
	* 3*Switches
	* 1*FDD
	* 1*video control jumper
Back Panel Connectors	* 1*PS/2 keyboard port
	* 1*PS/2 mouse port
	* 1*COM port
	* 1*VGA port
	* 4*USB ports
	* 1*RJ45 port
	* 1*LPT port
	* 3*JACKs
I/O	ITE8712F-S
H/W Monitoring	* CPU/System temperature detection
	* CPU/System/Power fan speed detection
	* System voltage detection(optional)
BIOS	* 1*4Mbit flash
Form Factor	ATX 210mm x 305mm

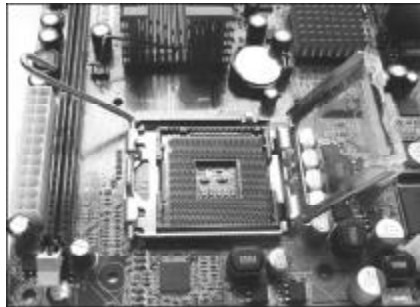
Chapter II Hardware Installation

2.1 Install CPU

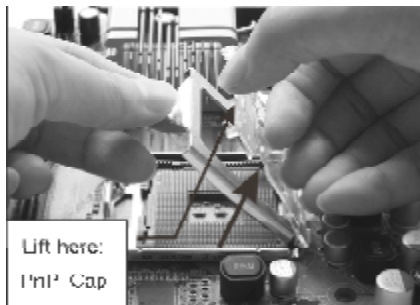
Install Intel 775-pin CPU according to the following steps.

~ *Before you insert the CPU into the 775-pin socket, please check whether the CPU surface is dirty and whether there is bent pin on the socket. Do not force the CPU into the socket, otherwise CPU or the socket will be seriously damaged.*

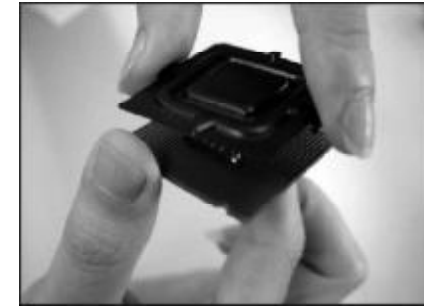
Step1 Pulling up the lever by the side of the CPU socket, turn it about 135 degrees around to the complete open position. And then turn the cover about 100 degrees around to the complete open position.



Step2 Remove the protective cover: Hold the metal frame edge by one hand, uncover the protective cover from the socket by the other hand and press the center of the cover to remove it.



Step3 Unload CPU protective cover, there are two specially designed convex location on the Socket base and two concave location on the CPU, fit them together so that you can insert the CPU into the socket. Please do that correctly to avoid CPU-pin damage.



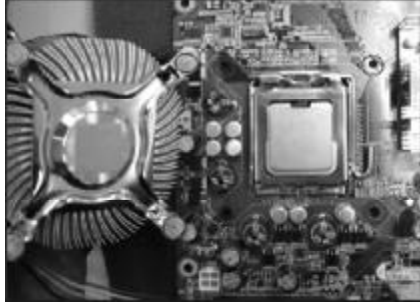
Step4 After insert the CPU, cover the protective cover. Replace the lever to fasten the cover, fix up the lever to complete the CPU installation.



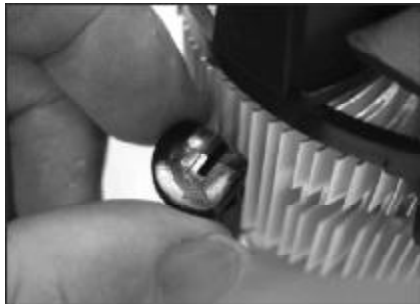
2.2 Install CPU fan

TO keep the CPU work normally, you must choose a good quality CPU cooler. Here we take Intel's original fan as an example to illustrate the CPU fan installation.

Step1 Before you install the fan, check whether the bottom of the cooler was coated with thermal grease (Intel's original fans often attached with thermal interface material TIM), if not, coat the CPU surface with some thermal grease.



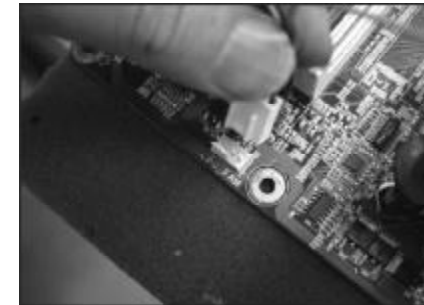
Step2 Remove the power cord of the fan, point four gaps of the fasteners to the inner part.



Step3 Make sure put the fan cables on the side of the power plug, place the cooler upon the socket LGA775, align the fasteners and the four holes on the motherboard, clasp them.



Step4 Plug the fan power cord to the CPU fan header (CPU_FAN) on the motherboard.



2.3 Install Memory

Motherboard supports dual-channel memory, the capacity can be expanded from minimum 64MB to maximum 4GB.

Installation steps are as follows:

- Unclose the fasteners at the both sides of the memory slot.
- Insert the memory vertically into the slot, pay attention to fitting the notch to the raised point.
- If the installation is correct, the white fasteners at the both sides of the memory slot would close automatically.



In order to make the system stable, please choose genuine memory.

2.4 Install Video Capture Card

There are two kinds of Video capture cards: PCI and PCI E-1X interface cards. Please insert the card into the right slot vertically, otherwise it might damage the card or motherboard Slots. Note: PCI interface cards can only be received in the PCI slot which can not be inserted in the PCI E slot, so does the PCI E-1X interface card, these two kinds of cards can not be used simultaneously.

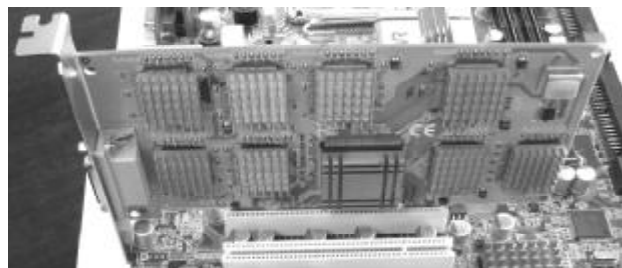


figure 1:PCI interface card insert into the PCI slot



figure 2:PCI E-1X interface card insert into the PCI-E 16X slot



figure 3:PCI E-1X interface card insert into the PCI-E 1X slot

2.5 Motherboard Jumper

The first pin of all jumpers are next to the line or “r”, be sure to connect them correctly, or may damage the motherboard and devices.

2.5.1 Clear CMOS Jumper(CLR_CMOS)

If there are problems with the motherboard because of BIOS setting error,you can clear the CMOS to solve the problem.Turn off the computer and unplug the power cord,move the jumper cap from pins 1-2(defaule) to pins 2-3,keep the cap on pins 2-3 for 5-6 seconds,then move the cap back to pins 1-2.Don't clear the CMOS when the computer is running,or else may damage your motherboard. Jumper settings as follows:

CMOS Definition	CLR_CMOS
Normal	1  3
Clear CMOS	1  3

2.5.2 Onboard LAN Shielding Jumper(LAN_EN)

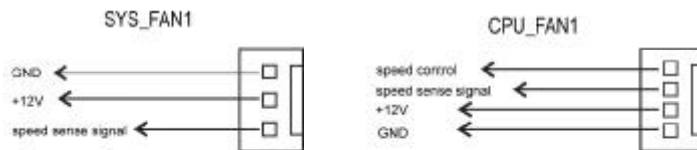
The motherboards provide onboard LAN jumper for RTL8100C chip.Users can choose whether to use the onboard LAN by the jumper.

Onboard LAN Jumper	LAN_EN
Enable	1  3
Disable	1  3

2.6 Motherboards Interfaces

2.6.1 Fan Power Connectors (CPU_FAN1/SYS_FAN1)

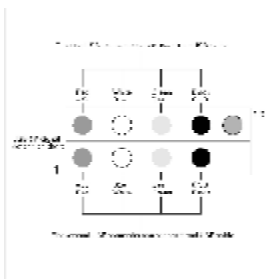
When Plug the fan power cord to the fan header,users must connect the red line to the +12V power-pin and connect the black line to ground. If you want to observe the fan work state in BIOS or hardware monitor procedures, you need use fans which have speed detection function. The fans with speed sensor produce two pulse each rotation, then the system hardware monitor make a fan speed statistical report which can be displayed in CMOS.



2.6.2 USB Header (F_USB)

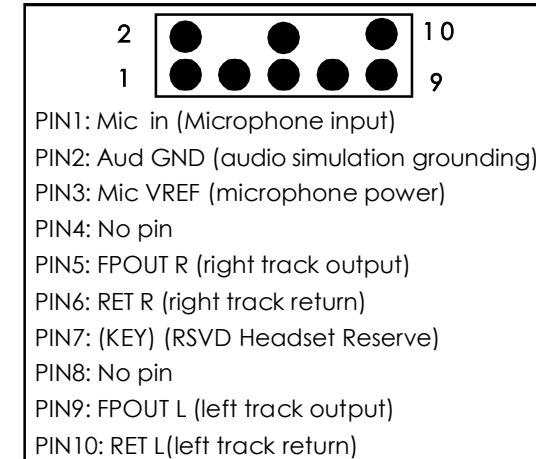
Motherboards provide 8 USB ports, 2 of which can be directly connected to USB devices ,The F_USB1/F_USB2/F_USB3 need USB cables and they can provide you another 6 USB ports,you can purchase the USB cable from the motherboard dealer or the electronic market.(Note:The first pin is near by the thick white line,be sure to connect them correctly , or else may damage your motherboard.)

~ *The first pin is next to the logo "r" on the motherboard, be sure not to mistake,or may damage your devices or motherboard!*



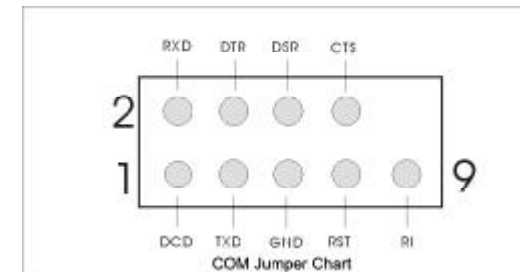
2.6.3 Front Panel Audio Header(F_AUDIO)

You may connect your chassis front panel audio module to this header.It is convenient for you to listen to music and use microphone for voice input. You must connect them correctly(the following chart shows).



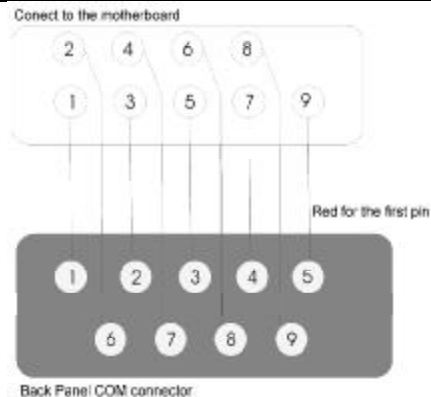
2.6.4 COM Header(COM1/COM2/COM3/COM4)

COM1/COM2/COM3/COM4 need USB cable for connecting, you can purchase this cable from the motherboard dealer or the electronic market.(Note:The first pin is next to the logo "r" on the motherboard, be sure not to mistake,or may damage your devices or motherboard!)



2.6.5 COM Header Connection

You should use the cable to connect the COM header, the cable wiring are as follows:



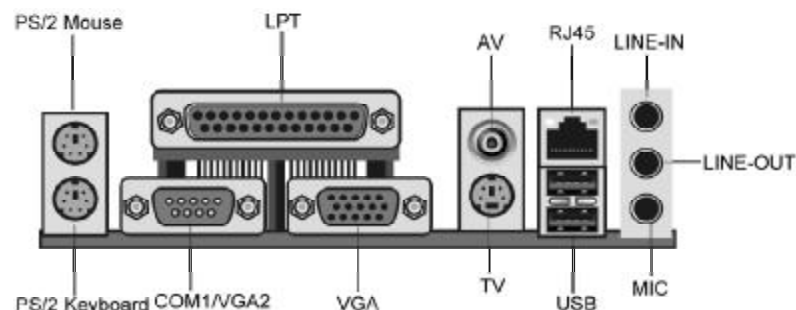
2.6.6 IDE Using Instructions

IDE1 is provided by the South Bridge, in order to meet the users' need for more IDE devices, we add chipset for expansion, the chipset provide the IDE2/IDE3 interface. In the BIOS, the list only shows the IDE1 device, IDE2/IDE3 devices are not shown, the main boot system need to be connected to the IDE1.

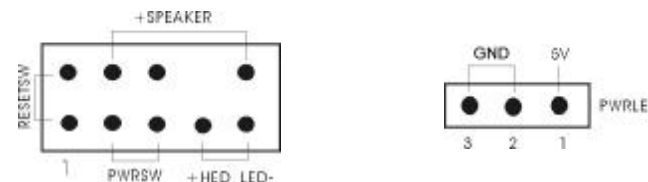
2.6.7 SATA Using Instructions

SATA_DR1/DR2 are provided by the South Bridge, in order to meet the users' need for more SATA devices, we add chipset for expansion, the chipset provide the SATA_DR3/DR4 interface. In the BIOS, the list only shows the SATA_DR1/DR2 devices, SATA_DR3/DR4 devices are not shown, the main boot system need to be connected to the SATA_DR1/DR.

2.6.8 Back Panel Connectors Instructions



2.6.9 Front Panel Header(F_PANEL)



- a. SPEAKER Speaker Connector
- b. PWRLED Power Active LED
- c. HD-LED Hard Disk Active LED
- d. PWRSW ATX Power Switch
- e. RESETSW Reset Switch

- a. SPEAKER Speaker Connector
Speaker Connector (also called buzzer) is a four-pins connector, connect the speaker to the four pins.
- b. PWRLED Power Active LED
Power Active LED is a three-pin connector, it used to indicate the computer working state, once the computer connect to the power, the PWRLED keep emitting (Note: There are anode and cathode).
- c. HD-LED Hard Disk Active LED
This group of two-pin connected to the computer Hard Disk Active LED, the LED can show the hard disk working state, once the hard disk reading, the LED emitting (Note: There are anode and cathode).
- d. PWRSW ATX Power Switch
POWER SW is a two-pin connector, it controls the ATX main power, connect this group pins to the power switch of the computer, make the two pins short circuited can open (close) the computer.
- e. RESETSW Reset Switch
This group of pins connected to the reset switch on the computer chassis hence you do not need to switch off the computer power to restart the system, it is very useful especially when the system blocks or crashes.

2.6.10 JP1 Jumper Setting (Introduce for 6234T/G438TD model)

Due to various of display interfaces, the jumper is specially designed for setting display order priorities.

SETTINGS	Connectors		
JP1	TV connector(AV, S-Video)/ Extended VGA	PCI E 16X slot	Onboard VGA
1-2 short	Disable	PCIEX16/X1 devices	Enable
2-3 short	Enable	PCIEX1 devices	Enable

2.6.11 S-Video output mode setting method (Introduce for 6234T/G438TD model)

Step 1 Jumper Settings: In accordance with Table 2-6-10,shot 2-3 in the 15 pin of the JP1;

Step 2 BIOS Settings: The default setting in the BIOS can use the normal S-Video, users do not need any settings.BIOS can use the default S-Video and Onboard VGA, can not be used to expand the VGA

Step 3 In a number of display devices under Windows settings:Enter the operating system,click the right mouse button in the blank space on the desktop ,choose the “Graphics Properties”(Figure1),In the pop-up window, select “Display Devices” column(Figure2)

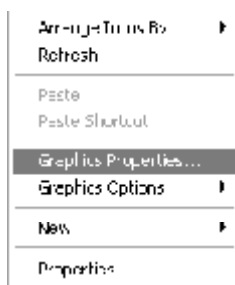


Figure1

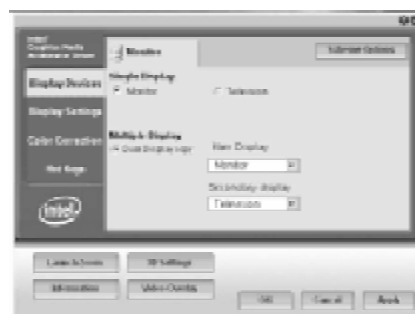


Figure2

NOTE: 1、 Please install graphics driver, otherwise it is impossible to debug;
2、 At the same time, if connect the television and on-board VGA, only

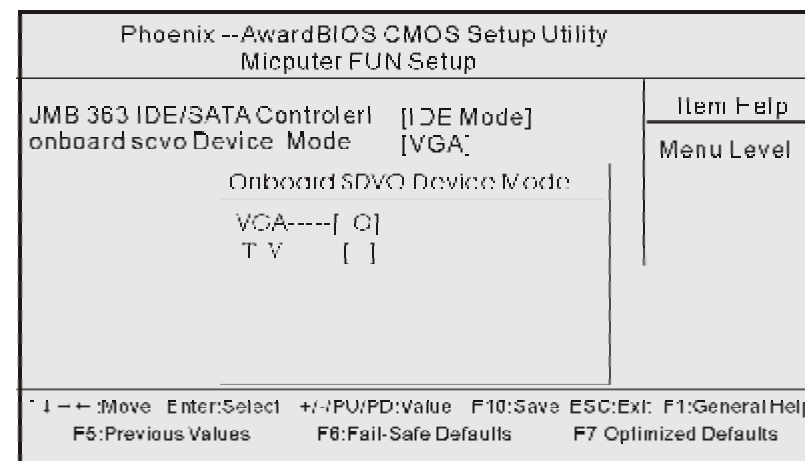
to see the same display under WINDOWS-screen display (not support Asynchronous different time show),DOS can only support under the on-board VGA display; if connect television, under the DOS in, WINDOWS under the S-Video can be displayed.

3、 S-Video support for SDTV / HDTV's 9PIN interface, this interface can not support play when plug. When your S-Video is a non-9PIN line interface, please switch to using a dedicated connection.

2.6.12 Dual VGA output set of methods (Introduce for 6234T/G438TD model)

Step 1 Jumper Settings: In accordance with Table 2-6-10,shot 2-3 in the 15 pin of the JP1;

Step 2 BIOS Settings: According to the Delete key to enter into CMOS, to find "Micrputer Fun setup" option,Set VGA to “onboard SDVO Device Mode”, save and exit, two VGA can be used, S-Video and PCIE 16X is not available.



Step 3 In a number of display devices under Windows settings:Into the operating system, the blank space on the desktop click the right mouse button, choice “Graphics Properties”(Figure1),In the pop-up window, select "Display Devices" column(Figure2)



Figure1



Figure2

2.6.13 PCI E 16X slots to use (Introduce for 6234T/G438TD model)

- 1、 When the JP1 group of 15 pin is set to 1-2 short, at this time PCI-E 16X slot can support PCIEX16, X8, X4, X1 equipment (such as graphics cards, network cards and card collection, and so on)
- 2、 JP1 group of 15 pin is set to 2-3 short, at this time PCI-E X16 slot can only support the PCIEX1 output, even if the devices connected to the X16, at this time can only work in PCIE X1 on the bandwidth.

Chapter III BIOS Introduction

3.1 BIOS updates

In order to meet the needs of customers, we offer special WINDOWS and DOS system BIOS flashing tools, operation are as follows.

3.1.1 DOS Flashing

- a. Flash tool: AFUDOS.EXE
- b. Flash operation: Prepare a DOS startup disk, it contains only three basic DOS startup files,copy AMI BIOS Flash tool and BIOS files to the U directory, boot by the guide system,after enter DOS,input: AFUDOS "BIOS file name" /P /B /N /C /X,press Enter to carry BIOS flashing process.After that there will be relevant instructs, at this time, restart the computer, press F1 to set the CMOS, select Load Optimal Defaults.

3.1.2 WINDOWS Flashing

- a. Flash tool: AFUWIN.EXE
- b. Flash operation: In WINDOWS,run AFUWIN.EXE--click OPEN--choose the BIOS file--select Program ALL Blocks--click FLASH.In the writing process, the Keyboard and mouse will be locked until the writing finish,then restart the computer and press F1 to set the CMOS,select Load Optimal Defaults



There will be risks in the BIOS flashing,please do it under the guidance of professional and note the following two points:

1. BIOS file should match the product Model
2. In the writing process,Please don't shut down/restart the computer illegally

3.2 BIOS Setup

Because the BIOS software is constantly being updated, the following BIOS setup screens and descriptions may not exactly match what you see on your screen and they are for reference purpose only.Some of the items are not in common used,we suggest not to change them at will and keep the default value.

Enter steps:

- a. Open or restart the computer,you may see "PRESS DEL TO RUN SETUP" in the self-checking screen.
- b. Press the "DEL" key, then enter the BIOS setup screen.

DVR MOTHERBOARD Safety Steady Reliable	
BIOS Setup Program Function Keys	
Function Keys	function explanation
↑ ↓ ← →	Move the selection bar to select an item
+ -	To change option for the select items
<Tab>	To change option
<ESC>	Main Menu:Exit without saving
<F1>	Show descriptions of the function keys
<F7>	Load the Optimized BIOS default settings for the current submenus
<F8>	Load the Fail-Safe BIOS default settings for the current submenus
<F9>	Load the Optimal BIOS default settings for the current submenus
<F10>	Save all the changes and exit the BIOS Setup program

3.3 BIOS Language Switch

To allow more users to become familiar with the BIOS operation, we introduce Chinese-English bilingual BIOS, users only need to click "F5" after enter the CMOS to easily switch them,it makes BIOS operation No longer mysterious.

(Note: For more BIOS program details, please refer to the user's manual PDF file in the CD-ROM.)

3.4 Power On Automatic Restore Setting

Sometimes it comes to power cut suddenly,Once the DVR machine shuts down because of the power cut and there is no body on duty,the video surveillance will be suspended which bring to security dangers. Therefor, our company design power on automatic start-up function for the products, this function needs special hardware circuit design and BIOS software support.BIOS settings are as follows:

Turn on the DVR host and then press DEL key to get into CMOS settings interface. On the main menu, select the "advanced\SuperI/O Configuration" item,you'll see the figure below,Config them in need:

DVR MOTHERBOARD		Safety Steady Reliable	
CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.			
SuperIO Configuration			
Configure ITE8712 Super IO Chipset		Help Item	
OnBoard Floppy Controller	[Enabled]	Allows BIOS to Enable or Disable Floppy Controller.	
Floppy Drive Swap	[Disabled]		
Serial Port1 Address	[3F8/IRQ4]		
Serial Port1 Mode	[Normal]		
Serial Port2 Address	[2F8/IRQ3]		
Serial Port2 Mode	[Normal]		
Serial Port3 Address	[A58/IRQ10]		
Serial Port4 Address	[A60/IRQ11]		
Parallel Port Address	[378]		
Parallel Port Mode	[Normal]		
Parallel Port IRQ	[IRQ7]		
Restore on AC Power Loss by	[Last State]		
↑↓←→:Move Enter:Select +/-:Value F10:Save ESC:Exit F1:General Help F5:Language F7:Previous Values F8:Fail-Safe Defaults F9:Optimized Defaults			

Note: Function explanation of the three options in BIOS(Default value is "Last State"):

(When the host power supply has been shut down suddenly)

Power On:Start-up automatically with power supply restoration

Power Off:Turn off the automatic start-up function.

Last state:,Whether start-up automatically depends on the last state of the host. If it was working,it will start-up automatically with power supply restoration,otherwise,it'll not.

Chapter IV

Watchdog software using instruction and installing steps(only for DVR-6234T products)

DVR machine may sometimes crash, caused by some reasons, as it is always working in the hot and dry computer room. Once the system becomes out of work accidentally, and there is nobody on duty in the DVR pc room, the monitor will stop due to the computer crash, it will bring much trouble to the security. So, our company has developed this software, named watchdog, in order to solve this problem for users. The theory is to realize the restart function after the dead of DVR system, through working with the hardware circuits designed specially on motherboards.

4.1 Software Function

Under the inspection of system, once the system out of work, the watchdog software will send out the recover signal to stimulate all the hardware circuit to work well automatically, then computer will open again and load the video inspection software. Therefore, the monitor is still working even when nobody in the pc room and the machine goes dead, leaving no dead angle for the security.

4-2 The definition and working theory of Watchdog

A clock circuit that keeps counting from a set number down to zero. If the event it is monitoring occurs before it reaches zero, it resets to the starting number and starts counting down again. If the timer reaches zero, it performs some action; for example, a diagnostic operation such as rebooting the computer or sending an error message.

Work theory: the counter of the watchdog starts when the system is operating, and it begins to count in the meantime, if you don't check the watchdog in a period, the counter of the watchdog will be full and even overflow, which can stop the watchdog working and make the system reset. So, please take care the watching dog when you use the chip.

4.3 software installation

Open the disk, and enter into the MB/ WATCH DOG menu, click twice **Setup** to start installation, then keep on clicking **Next** step following the indication, till click the **Finish** step then the machine will reset, and watchdog starts to work. (Related pictures are showed in Status Bar).

Remarks:

1. This software is operated in windows98/2000/xp/server2003 32-bit operating system
2. Please install this software in the authority of the system administrator, thanks.

Chapter V Drivers Installation

The motherboard support WINDOWS2K and above systems, they have different software systems, we provide 2K/XP/VISTA system drivers in CD-ROM, take the 2K/XP system installation for example

4.1 Install Chipset Driver

- Enter "MB\INF" folder. For 945 series, Double-click "945INF.exe"; For G31/G35 series, Double-click "infirst_autol.exe".
- Click "NEXT".
- Select "YES", then Click "NEXT".
- After finish the installation, select "YES", click "FINISH" to restart the computer, then driver will be loaded automatically.

4.2 Install Onboard VGA Driver

- Enter "MB\VGA\945" folder, double-click "WIN2k_xp1417.exe". (For G31, enter "MB\VGA/G31/WIN2K_XP" folder, double-click "SETUP.EXE")
- Click "NEXT".
- Select "YES", then Click "NEXT".
- After finish the installation, click "FINISH" to restart the computer, then driver will be loaded automatically.

4.3 Install Onboard Audio Codec Driver

- Enter "MB\SOUND" folder, double-click "WDM_A379.EXE".
- According to tips, click "NEXT", then click "CONTINUE".
- After finish the installation, select "YES", click "FINISH" to restart the computer, then driver will be loaded automatically.

4.4 Install USB2.0 Driver

Motherboard need to match Windows XP or later, after you have installed Windows XP/2003 operating system, update the latest Microsoft patch, then this system can generally identify your USB2.0 device. You can also login the relevant website to download USB2.0 Driver (It is an executable file), double-click the program to Install the driver.