

TAKSTAR® 得胜



SG-MA系列 网络功率放大器

IP Network Power Amplifier

使用说明
User Manual

SG-MA 系列网络功率放大器

■ 前言

感谢您选购得胜SG-MA系列网络功率放大器,为了您能够更好地了解使用本产品,建议您在使用前仔细阅读本说明书。

若存在有疑问或者您有宝贵的建议,可通过拨打得胜官方服务热线400 6828 333或微信扫描二维码关注得胜官方公众号与我们联系。



■ 产品特性

- 带有温度控制检测装置,风扇散热,散热器温度达55度时自动启动风扇散热;
- 具有显示屏,显示温度与增益更直观检测功放运行状态;
- 防空警报触发开关,可选择配置DC24V电源供电模块。带有1路三线制报警强切输出接口,由主机控制相应区域报警:无需另配24V强切电源,音控数量不受限制;
- 内置嵌入式网络语音解码模块,完成网络音频流的同步接收和解码:采用嵌入式PC技术和DSP音频处理技术设计:采用高速工业级ARM芯片,启动时间达到毫秒级:提高设备使用稳定性;
- TCP/IP高品质的数字音频传输,音质达到CD级(位速320kbps);
- 采用固定静态IP地址,当网络发生改变时地址不会丢失,工作稳定;
- 机器设有IP地址复位开关,复位可恢复出厂设置;
- 1路网络输入(音量控制),2路LINE输入,2路MIC输入;实现本地外接音源输入和紧急广播输入,每路具有独立的音量调节;1路EMC输入,优先网络和其他外接信号,使各种联动的紧急报警设备多样化;EMC输入具有最高优先级,网络报警信号优先于本地MIC输入,本地MIC输入优先于AUX和网络音乐,本地AUX和网络音乐信号无优先级;
- 每路MIC/LINE信号输入均带独立的数字音量调节;
- 全数字高音、低音和主音量调节,让音质自由调节:调节更加清晰、灵活、准确;

SG-MA 系列网络功率放大器

- 故障自动检测及LED提示功能;自动故障检测系统功能及过载、过温、过压保护;压限电路处理有效避免音频输出信号失真;
- 全面的短路及高温保护电路保障系统使用的安全性;
- 自带1路音频输出接口,方便多机连接、监听及驱动有源音箱;
- 具备智能电源管理功能,设备采用内置CPU判断功效的运行状态,在无工作状态时功放自动进入休眠状态,待机功率 $\leq 0.2W$,当有播放任务时,功放自动启动。具有自动唤醒和设置提前预开功放电源时间;
- 带有远程音量调节功能,终端在自动启动和播放任务的时候,自动将音量调节到系统设定的默认状态。音量自动调节默认值分别可制定为背景音乐音量、紧急广播音量和消防广播音量等;
- 设备具备全数字高音、低音和主音量调节,调节更加清晰、灵活准确;
- 通过网络任意接收来自服务器的广播节目,包括话筒寻呼、消防警报自动强插、电话寻呼等;
- 一线多用:充分利用现有网络资源,避免重复架设线路,兼容TCP/IP网络协议,可挂接在以太网到达的任何地方,真正实现广播、计算机、监控网络等的多网合一,支持跨网关、跨路由、互联网传输。通过网络联机设定IP地址及网络配置等;
- 具有远程升级功能,产品程序更新无须现场升级,通过网络远程即可更新、方便快捷;
- 设备具有软件远程设置高低音功能,可以根据播放内容对高低音要求不同自行设置。

■ 适用范围

商超、校园、酒店、公园、监狱、大型商业综合体等场合

SG-MA 系列网络功率放大器

■ 包装清单

功放	1台
电源线	1条
说明书	1份

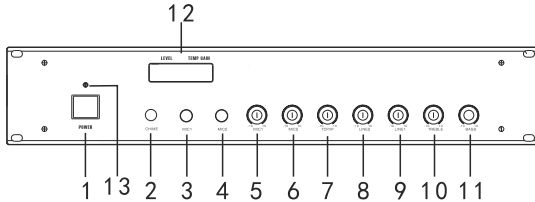
■ 技术参数

型号	SG-15MA	SG-35MA	SG-65MA
额定功率	150W	350W	650W
产品毛重	约13.5KG	约15.8KG	约19KG
环境温度	-10°C~65°C		
环境湿度	20%~80%相对湿度, 无结露		
电源	AC220V/50HZ		
网络接口	RJ45		
传输速率	10Mbps/100Mbps		
支持协议	TCP/IP, UDP, IGMP (组播)		
音频格式	MP3/MP2		
音频模式	-16-32位立体声CD音质		
采样率	8K~48K		
比特率	8K~512Kbps		
EMC输入灵敏度	775mV		
AUX输入灵敏度	350mV		
MIC输入灵敏度	10mV		
待机功率	<0.2W		
频率响应	50Hz~18KHz +1/-3dB		
谐波失真	THD≤0.1%		
信噪比	≥85dB		
传输方式	4-16Ω定阻输出、70V/110V定压输出		
产品尺寸 (W*H*D)	480mm*88mm*420mm		

注：以上数据由得胜实验室测试得到, 并拥有最终解释权！

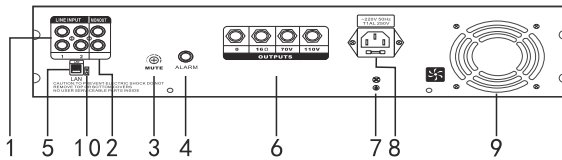
SG-MA 系列网络功率放大器

■ 面板介绍



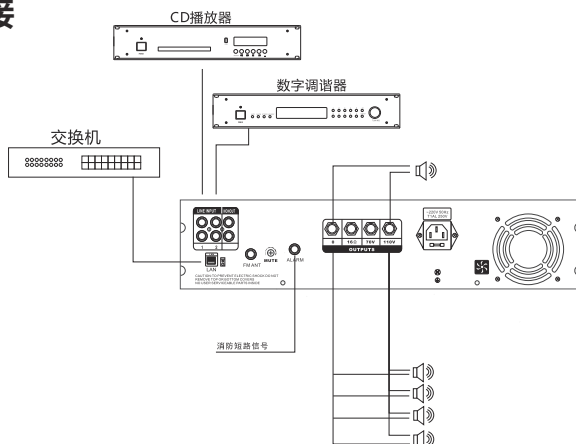
- ① 电源开关
- ② 提示音按钮
- ③ 话筒1输入
- ④ 话筒2输入
- ⑤ 话筒1音量
- ⑥ 话筒2音量
- ⑦ 网络音量旋钮
- ⑧ 线路2音量
- ⑨ 线路1音量
- ⑩ 高音调节旋钮
- ⑪ 低音调节旋钮
- ⑫ 电平指示, 温度, 增益
- ⑬ 指示灯

■ 背板介绍



- ① 线路1输入
- ② 线路输出
- ③ 话筒1优先深度调节电位器
- ④ 紧急输入接口
- ⑤ 网络接口
- ⑥ 4-16Ω/70V/110V输出
- ⑦ 接地端子
- ⑧ AC电源线接口
- ⑨ 散热出风口
- ⑩ 复位开关

■ 基本连接



■ 安全警示

为避免电击、高温、着火、辐射、爆炸、机械危险以及使用不当等可能造成的人身伤害或财产损失,使用本产品前,请仔细阅读并遵守以下事项:

1. 使用产品时请确认所连设备与本产品是否匹配以及合理调整音量大小,不要在超过产品功率及大音量下长时间使用,以免造成产品异常;
2. 使用中若发现有异常(如冒烟、异味等),请立即关闭电源开关并拔掉电源插头,然后将产品送售后服务网点检修;
3. 消费者若使用电源适配器供电,则应购买配套使用获得CCC认证并满足标准要求的电源适配器;
4. 本产品及配件都应放置在室内干燥通风处,请勿长期存放在潮湿、灰尘多的环境,使用中避免靠近火源、雨淋、进水、过度碰撞、抛掷、振动本机及覆盖通风孔,以免损坏其功能;
5. 使用该产品时需遵守相关安全规定,法律法规明确禁止使用场合请勿使用本产品,以免导致意外事故;
6. 请不要自行拆机改装或维修,以防止出现人身伤害,如有问题或服务需求请联系当地售后服务网点跟进处理。

SG-MA Series IP Network Power Amplifier

■ Preface

Dear Customer,

Thanks for purchasing our product. Read this manual thoroughly for proper use.

If you have any questions or suggestions, please contact our local sales service.

■ Functionality

- **Temperature Control:** Automatically activates fan cooling when the heat sink temperature reaches 55°C.
- **Status Display:** Real-time display of temperature and gain for easy monitoring of amplifier performance.
- **Alarm System Integration:** Features an alarm trigger switch with optional DC24V power supply module. Includes one 3-wire relay output for alarm activation, controlled by the control unit, allowing unlimited audio control without additional 24V power.
- **Embedded Decoding Module:** Built-in network voice decoding for synchronized audio streaming, utilizing advanced embedded PC and DSP technology with a high-speed industrial ARM chip for fast startup, enhancing stability.
- **High-Quality Audio Transmission:** Supports TCP/IP digital audio transmission at CD-quality (320kbps).
- **Static IP Addressing:** Fixed static IP ensures stability during network changes.
- **IP Reset Switch:** Allows restoration of factory settings.
- **Input Options:** One network TCP/IP input, two LINE inputs, and two MIC inputs, each with independent volume control. One EMC input for emergency alerts. Priority: EMC > MIC > LINE = TCP/IP.
- **Digital Volume Control:** Independent digital volume adjustment for each MIC/LINE input.
- **Audio Adjustment:** Full digital control over treble, bass, and master volume for precise tuning.

SG-MA Series IP Network Power Amplifier

- **Fault Detection:** Automatic fault detection with LED indicators for overload, over-temperature, and over-voltage protection; with limiter circuit processing to prevent output audio distortion.
- **Safety Features:** Comprehensive short circuit and high-temperature protection circuits for enhanced safety.
- **Audio Output Interface:** One audio output for cascading multiple devices, monitoring, or driving powered speakers.
- **Intelligent Power Management:** Automatically enters sleep mode during inactivity ($\leq 0.2\text{W}$ standby power) and wakes for playback tasks, with options for scheduled power-on.
- **Remote Volume Control:** Automatically adjusts to preset default volumes for background music, emergency broadcasts, and fire alarms during auto-startup and playback.
- **Broadcast Reception:** Capable of receiving various broadcast programs via the network, including mic paging and automatic fire alarms.
- **Network Utilization:** Efficiently leverages existing network infrastructure, compatible with TCP/IP, allowing connections anywhere on an Ethernet network, supporting multi-network integration and remote IP configuration.
- **Remote Software Updates:** Allows for easy software updates via the network without on-site access.
- **Customizable Audio Settings:** Remote adjustment of treble and bass based on playback content for enhanced audio performance.

■ Application

Shopping malls, campuses, hotels, parks, prisons, community announcements, and large commercial complexes.

SG-MA Series IP Network Power Amplifier

■ Package Contents

- 1 × Power Amplifier
- 1 × Power Cord
- 1 × User Manual

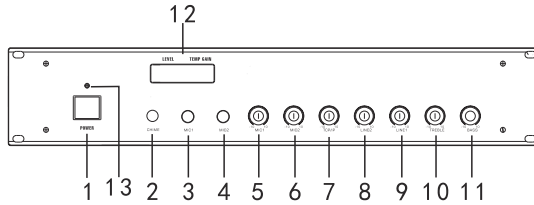
■ Technical Specifications

Model	SG-15MA	SG-35MA	SG-65MA
Rated Power	150W	350W	650W
Gross Weight	About 13.5KG	About 15.8KG	About 19KG
Operating Temperature	-10°C~65°C		
Operating Humidity	20% to 80% relative humidity, non-condensing		
Power Supply	AC220V/50HZ		
Network Interface	RJ45		
Transmission Rate	10Mbps/100Mbps		
Supported Protocols	TCP/IP, UDP, IGMP (Multicast)		
Audio Format	MP3/MP2		
Audio Mode	16-32 bit stereo CD quality		
Sampling Rate	8K~48K		
Bit Rate	8K~512Kbps		
EMC Input Sensitivity	775mV		
AUX Input Sensitivity	350mV		
MIC Input Sensitivity	10mV		
Standby Power Consumption	<0.2W		
Frequency Response	50Hz~18KHz +1/-3dB		
Harmonic Distortion	THD≤0.1%		
Signal-to-Noise Ratio	≥85dB		
Transmission Method	4-16Ω output, 70V/110V output		
Dimensions (W*H*D)	480mm*88mm*420mm		

Note: The above data are measured by Takstar laboratory which has the final interpretation right!

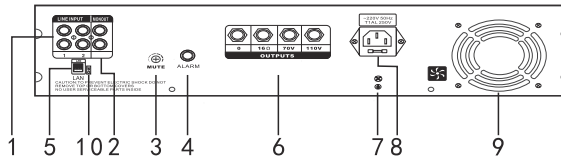
SG-MA Series IP Network Power Amplifier

■ Front Panel



- ① Power Switch
- ② Tone Alert Button
- ③ Mic 1 Input
- ④ Mic 2 Input
- ⑤ Mic 1 Volume
- ⑥ Mic 2 Volume
- ⑦ Network Volume Knob
- ⑧ Line 2 Volume
- ⑨ Line 1 Volume
- ⑩ Treble Adjustment Knob
- ⑪ Bass Adjustment Knob
- ⑫ Level, Temperature, Gain Indicator
- ⑬ Indicator Light

■ Rear Panel

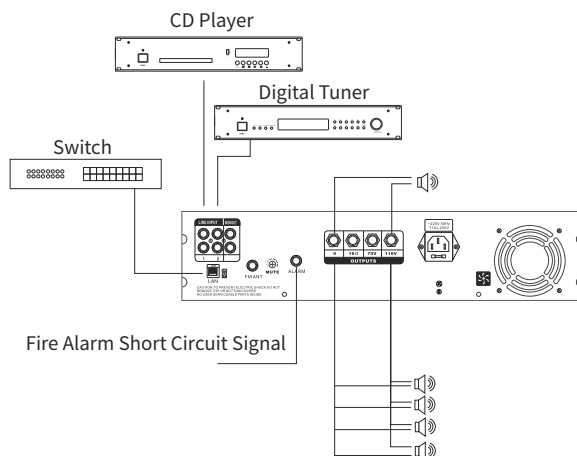


- ① Line 1 Input
- ② Line Output
- ③ Mic 1 Priority Adjust Potentiometer
- ④ Emergency Input
- ⑤ Network Interface
- ⑥ 4-16Ω/70V/110V Output
- ⑦ Ground Terminal
- ⑧ AC Power Cord Interface
- ⑨ Cooling Exhaust Vent
- ⑩ Reset Switch

SG-MA Series IP Network Power Amplifier

■ Basic Connection

Basic Connection Diagram



■ Safety Instructions

To avoid electric shock, overheat, fire, radiation, explosion, mechanical risk and injury or property loss due to improper use, please read and observe the following items before use:

1. Please check if the power of the connected equipment matches with that of this product before operation. Adjust the volume to proper level during operation. Do not operate at over-power or high-volume level for extended time to avoid product malfunction.
2. If there is any abnormality during use (e.g., smoke, strange odor), please kill the power switch and unplug from power source, then send the product to the local after-sales service for repair.
3. Power adapter used, if any, should be approved by CCC certification or similar standards and comply with the power supply requirements.
4. Keep this product and its accessories in a dry and ventilated area. Do not store in a humid or dusty area for extended time. Keep away from fire, rain, liquid intrusion, bumping, throwing, vibrating, or from blocking any ventilation openings, to prevent malfunction.
5. Please abide by safety rules during operation. Do not use the product in places prohibited by laws or regulations to avoid accident.
6. Do not disassemble or repair the product without authorization to avoid injury. If you have any questions or require any services, please contact our local after-sales service.

注意事项:

- 1. 本单为保修凭证, 请用户妥善保管, 如有遗失, 恕不保修或退换。
- 2. 保修期限制: 购买之日起十二个月内。
- 3. 除了不可抗力事件损坏外, 由本公司负责, 免费维修。
- 4. 如属保管不善或使用不当造成的损坏, 维修点将酌情收费。
- 5. 擅自拆卸维修者, 不予保修。
- 6. 以上保修条款仅限于中国市场适用 (不含港澳台地区)。

产品服务保证书

姓名: _____ 电话: _____ 地址: _____
商品: _____ 型号: _____ 购买日期: _____ 年 ____ 月 ____ 日

维修记录栏 (由维修员填写)	维修员签名	日期

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