ALERiTY Wide-Area Mass Notification



Mass notification

Providing industry-leading intelligibility

Powering Business Worldwide

ALERiTY

Integrated mass notification solutions by Eaton; designed to protect, alert and inform your most critical asset—your people

ALERiTY

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n.

1. **the quality of alerting with clarity—clear, intelligible and reliable emergency communications**
2. **unified interoperability platform that seamlessly manages the three layers of Mass Notification—Indoor, Outdoor and Distributed Recipient**
3. **situational awareness, integration with life safety, security and notification systems**
4. **the state of meeting stringent life safety requirements**



WAVES High Power Speaker Arrays

Multiple communication options to meet your organization's needs



Today's threats require clear, concise and intrusive voice messages that communicate how people should respond in an emergency. That's why WAVES High Power Speaker Arrays (HPSA), part of our ALERiTY solutions, are the perfect Mass Notification Systems (MNS) for notifying your community.

Industry-leading intelligibility

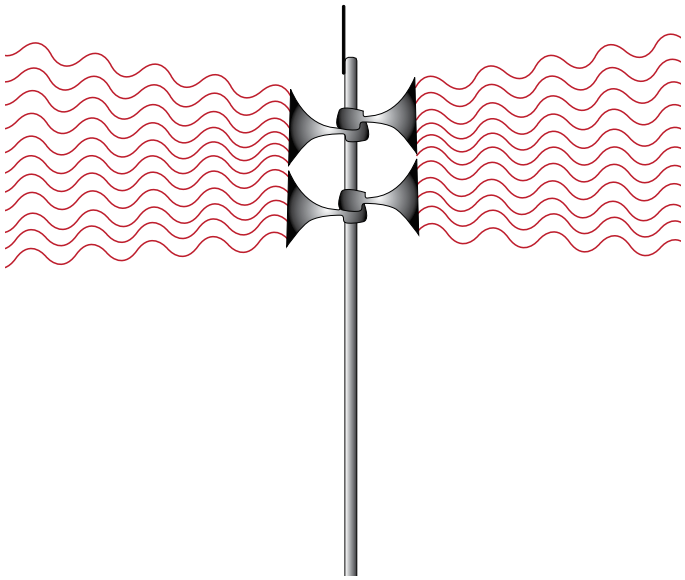
Using an advanced amplification system design, WAVES HPSAs feature industry-leading intelligibility. It broadcasts live and pre-recorded intelligible voice messages and tones, covering large geographic areas. Whether it's a public venue, school yard or college or corporate campus, the Giant Voice speaker arrays ensure that you get the right message to the right people at the right time.

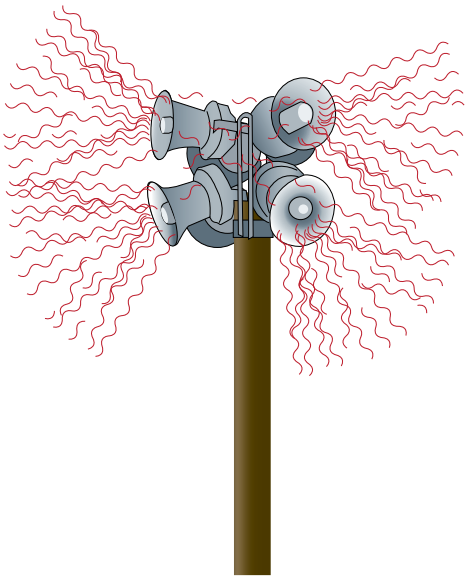
ALERiTY features a suite of critical communication solutions, including RF, IP and direct hard-wired networks, to leverage your existing infrastructure and expand coverage to outdoor areas.

- Designed to meet Life Safety requirements, CE Mark approved and TÜV certification, the HPSA-7100-R Series integrates directly to your existing audio source, including voice-capable Fire Alarm Control Panels (FACP), providing a simple upgrade path to expand coverage to outdoor areas. It can be also be integrated with Eaton's SAFEPATH Voice Evacuation Systems (SP40S) and Mass Notification Systems (SPMNS). Multiple HPSAs can be controlled by one source.
- Approved by TÜV to meet Life Safety requirements, the WAVES over IP HPSA-8100-R Series distributes messages via a secure, robust and reliable Ethernet communications network. Both wired and wireless IP solutions are available so that the delivery method can be agnostic. Supervision and monitoring of the HPSAs assures that commands are completed as attended with one click status of each HPSA. Through a Web-client server solution, remote activation and monitoring of HPSAs are available via multiple command and control stations. The HPSA-8100-R Series can be added to expand outdoor coverage in an existing 2.4 GHz WAVES system. It can also be integrated with Eaton's In-building and Distributed Recipient MNS for one effective, multi-layered solution.

Advanced Amplification Design

vs. traditional speaker-siren design





Advanced amplification design

- **Higher intelligibility:** HPSA's vertical line arrays provide a narrow vertical output pattern for focusing sound at audiences, without wasting output energy on the floor and up in the air; the more narrow the beam, the less distortion due to reflections, resulting in higher intelligibility
- **Equalized intelligibility:** HPSA's vertical line arrays approximate a line source of sound, creating a nearly cylindrical sound propagation pattern, resulting in balanced sound power output; messages are clearly heard at 100 feet as well as 1,500 feet
- **Directing sound where you need it:** HPSA speakers can be mounted for omni-directional and directional speaker coverage
- **Intelligibility ratings:** 0.8 Common Intelligibility Scale (CIS) rating; Phonetically Balanced Word Score Test—better than 95%*
- **Energy Efficient**
  - HPSAs only need one 100-watt driver per horn; two drivers needed for 360° coverage, equalling a fraction of the number of drivers required for traditional speaker system designs
  - Utilizing Class D amplification technology and better power management, the HPSA amplifier is better than 90% efficient, enables lower current draw and increased battery life, requiring fewer speakers and significantly less power for a substantially larger range

Traditional speaker-siren

- Broadcasts miss the majority of the target audience—by directing sound energy to the ground and up into the air, sound energy is wasted on areas that provide no benefit to the audience
- Distorted messages—ground reflections cause sound waves to bounce off the ground and arrive at different times to a person's ear, resulting in incomprehensible announcements
- Typical systems require more than one driver per horn (up to 4 drivers–400 watts), creating turbulence at the mouth of the horn and reducing the overall acoustic efficiency of the horn/driver system)

* Test was conducted under ideal conditions at 700 meters (2,300 ft) in a semi-circle around the HPSA

The Eaton difference

Industry-leading intelligible voice



Eaton's HPSA advanced amplification system design penetrates the atmosphere at a narrow band, focusing the beam directly at the audience, which results in better sound pressure and higher intelligibility at significantly less power for a broader coverage range.

Specifications

Model	Number of Horns	Watts	dB (C) @ 100′ (30 m)** 180°	Effective Range** — 180° Radius @ 70dB(C)	dB (C) @ 100′ (30 m)** 360°	Effective Range** — 360° Radius @ 70dB(C)
HPSA-x102	2	200	110	1600′ (480 m)	105	1200′ (366 m)
HPSA-x104	4	400	115	2400′ (732 m)	110	1600′ (480 m)
HPSA-x106	6	600	119	3040′ (927 m)	114	2240′ (683 m)
HPSA-x108	8	800	123	4160′ (1268 m)	118	2880′ (878 m)

**Field testing was performed in accordance with ANSI/ASA S12.14-1992, reaffirmed September 11, 2007. Actual SPL performance will depend on parameters such as site design, topography, climate and foliage.

Efficient speaker design provides uniform sound coverage





HPSA

Reliable, intelligible wide-area MNS







HPSA components

- 2–8 horns, varies by model number
- Assembly horn driver with cover (number varies by model number)
- Electronics cabinet includes either IP Communicator (IPC) or Audio and Monitoring Bridge, and four 65AH batteries
- Optional microphone for set-up and testing—HPSA-MIC

Emergency operation

- Proven operational in emergencies
- Continuous emergency operation regardless of primary power outage
- Intelligent battery charger maintains batteries at optimal charge state and supervises the batteries for multiple fault conditions

Energy & cost efficient

- Advanced amplification system enables lower current draw and increased battery life, requiring fewer speakers and significantly less power for a substantially larger range

HPSA features

- Highly intelligible live and pre-recorded voice and tone announcements
- Broadcast emergency messages with clarity up to 2,000 feet
- Omni-directional and directional speaker coverage options to direct sound where you need it
- Variety of mounting options
  - Deployed on a static pole
  - Affixed to a building
  - Mounted on a rooftop
- Trouble Signals—six discrete trouble signals (HPSA-7100-R) include No AC, No Battery, Low Battery, Door Open (tampered), Amplifier Fault, and Driver Fault
- Remote operation from the IBS or locally from the HPSA-8100-R models
- Supervision and monitoring with auto-diagnostics; online network diagnostics and configuration (HPSA-8100-R models)

Eaton

Trusted and reliable MNS solutions







Providing decades of experience and innovation, Eaton is the industry's foremost developer in advanced technological solutions for the rapidly growing mass notification market, where intelligible, reliable and redundant communications are paramount for responding to threats.

Multi-use applications

Eaton is helping emergency managers and security professionals in more than 500 MNS installations worldwide deliver critical alerts when it matters most. Eaton's Wide-Area Mass Notification Systems are successfully providing emergency communications for all types of threats and disasters in various types of occupancies. HPSAs can also be used for general announcements, crowd control and special events.

- Educational campuses
- Government complexes
- Industrial plants
- Municipalities
- Corporate campuses
- Healthcare facilities
- Military sites
- Public venues

Proven reputation

As a premier provider to the federal government, Eaton's advanced MNS solutions are battle-tested and battle-proven every day by protecting our armed forces in the most demanding environments and circumstances. The HPSA is available today in a variety of models and options to instantly inform people of exactly what to do and where to go with clear, intelligible and timely communications.

When public safety is at risk,
why would you rely on anything less?



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