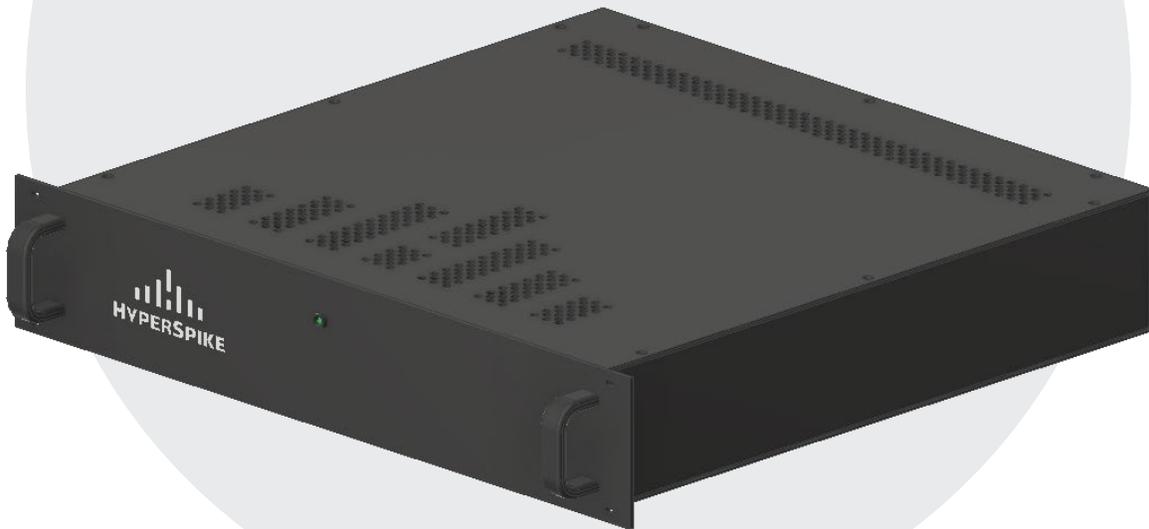# ENCOMPASS LT 2 *(FIRE)*

Amplifier for Fire-Protective Signaling Systems

Key features

- Signal conditioning optimized for maximum power and intelligibility for medium power speaker arrays

- Smart self-protection, self-monitoring and fault reporting

- Seamless, full-power UPS with self-contained back-up power system

- 1V or 25/70/100V input

- Volume control and test tone button

- Network Addressable Audio over IP (optional)

Overview

Engineered and designed with the latest amplifier technology for fire and life safety applications, the Encompass LT Amplifier is optimized to produce clear and authoritative voice commands and alarms with 250 W of available power.

The system automatically switches between primary and backup power, performs self-diagnostics, and reports status to the outside world through industry-standard Form C relay fault reporting and a front-panel LED, indicating flash codes. Packaged in a low profile 19" 2U rackmount enclosure, the Encompass Amplifier is perfect for indoor applications.
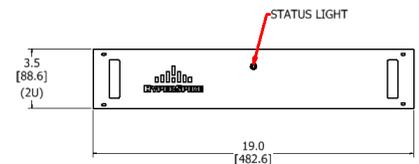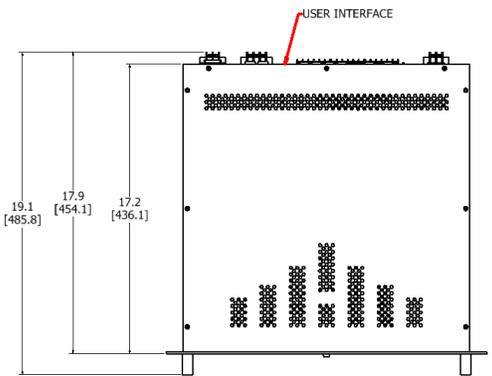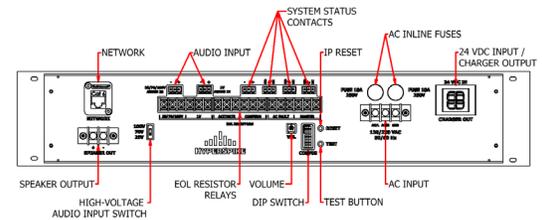
When making announcements, the HyperSpike® Encompass Amplifier responds at a moments notice and will continue to broadcast as long as required. With best-in-class response time and continuous full-power output, the Encompass LT amplifier is always ready to help direct people to safety.

Certifications	
Certified to UL 864, UL 2572, ULC-S527, ULC-S576	
Cabinet Specifications	
Electronic Cabinet Dimensions	3.5" T x 19" W x 19.1" D
Electronic Cabinet Weight	22 lbs
Battery Weight	Various (based on standby power requirements)
Cabinet Mounting	19" 2U rackmount
Electrical Interface	
Audio Activation Input	24 VDC nominal relay closure
Audio Input	1 VRMS or 25/70/100 VRMS
Trouble Outputs	Form C dry contact relay closure
	AC Fault
	Master Fault
Output Channels	1
Output Wiring	Min 18 AWG per channel (see manual)
Power Interface – Designed with Intelligent Power Switching Technology	
Primary Input Voltage	100 to 240 VAC; 50 to 60 Hz Single-phase (Universal AC/Auto-switching)
Output Power	250 W (avg), 500 W (peak)
Standby Time	>24 hrs (Based on battery size and use case)
AC Current Rating	5 Amps
Battery Charger (AC Powered)	2.2 A Smart Charger
DC Back-up Voltage	24 V Nominal Battery (20.4-29.4 VDC)
Batteries	Customer Supplied (Recommend AGM Batteries – see manual for details)
Amplification	
Digital Signal Processing	Optimized Acoustic Performance (Filtering, EQ, Compression, Limiting, etc.)
Frequency Response	400 Hz – 4 kHz (UL Certified Bandwidth) 100 Hz – 10 kHz (-3 dB)
Amplification	Class D
Efficiency	Greater than 78% at full load on AC Power Greater than 82% at full load on DC Power
Short Circuit Protection	Yes
Environment	
Operating Temperature	0° C to 49° C (32° F to 120° F)
Electronic Cabinet Rating	NEMA 1
Transient Protection	Built-in Input and Output Transient Protection
Part Numbers	
90317A-801	Encompass LT 250 W Cabinet

Architect and Engineer Specifications

The Electronics shall be: One (1) UL___ Certified 19" 2U rack mounted amplifier cabinet, with terminations and all components fully assembled and tested; Universal AC/Auto-switching (100 to 240 VAC; 50 to 60 Hz Single-phase) power supply. The electronic controls shall operate on 100-240 VAC primary power input as well as self-contained 24 VDC power backup system. Audio output power shall be one channel and output 250 W, with a maximum AC current draw of 5 Amps.

The Amplifier Cabinet shall have a NEMA 1 rating and operate within a temperature range of 0°C to 49°C.

HYPERSPIKE

Health/Status	
Fault Indication	Form C Dry Contact Closure
	Dual Color Status LED
Fault Monitoring **(indicated with flash code)**	AC Power System (Independent Contact Closure)
	DC Power
	Amplifier and Audio Chain
	Speaker Wiring
	Communication
	Calibration
	Ground (Speaker Wiring)
	Battery Charging System
	Thermal
	Fan

IP Module Specification	
Ethernet Interface	RJ45 10/100 Mbit Auto Detect (IPv4 and IPv6 Capable)
Network Configuration	Automatic IP Configuration on Open Networks
User Interface	Graphical User Interface for Setup and Control
Digital Audio Formats	MP3 CBR/VBR, Up to 320kbps, 8.48kHz Sample Frequency AAC-HE (AAC, AAC plus, AAC plus V2) PCM Linear 16bit @8, 16, 22.05, 24, 32, 44.1, 48 kHz G.711 / G.722 / GSM / Opus
Emergency Notification Compatibility	Stored Message Playback Auto Registration with Common ENS Platforms *
Health and Status (Visual)	LED Status Lights – Physical Reset Button
Security	HTTPS Secure Connection
IP Addressing	DHCP / Static
Internal Track Storage	1 GB storage

* Contact HyperSpike® for more details