

# ML Series Controllers

## smartSMS-NET Sound Masking System

Each **ML** controller provides:




- A compact Form-Factor
- Up to 8 output channels
- Up to 6 speakers per channel
- Independent equalizer for each channel
  - 340 narrow bands automatic equalizer
  - 1/3<sup>rd</sup> octave bands automatic or manual equalizer
- High-power amplifier providing up to 92 dBA at 1m
- Up to 8 inputs for active volume control sensors
- Up to 4 music/paging inputs with independent 1/3<sup>rd</sup> octave equalizers for each output channel
- 2 inputs for wall mounted volume control knobs



## smartSMS-NET sound masking system highlights:

- Many controllers can be networked together to construct large sound masking installations.
- Adaptive volume adjustment for optimal efficiency and comfort (US Patent 8116 461)
- Automatic equalization that guarantees the optimum sound masking spectra (US Patent 7460675)

## Specifications

	ML48-8ch	ML24-4ch	ML12-2ch
			
<b>Outputs</b>			
Nb. Outputs	8	4	2
Max Speakers/Output		6	
Max Speakers/Controller	48	24	12
<b>Sound Masking</b>			
Volume	30 to 92 dBA in 0.1 dB steps and mute		
Equalizer	23 1/3 octave bands (63 Hz to 10 kHz) or 500 narrow bands automatic equalizer		
Reference Spectrum	13 pre-set sound-masking reference spectrums, unlimited user defined spectrums		
Volume Ramp-Up	User defined, up to 30 days		
<b>Active Volume Control</b>			
Nb. Inputs <sup>1</sup>	8 (4 shared)	4 (4 shared)	2
Max Sensors/Input	6		
Control	Independent sound masking volume adjustment for each output channel		
Volume Change Rate	Adjustable down to 0.1dB steps, updates every 15s		
Active Adjustment Range	User defined; maximum range: -7 to +3 dB relative to reference masking level.		

## Specifications (Cont.)

Music and Paging	ML48-8ch	ML24-4ch	ML12-2ch
Nb. Inputs <sup>1</sup>	4 (4 shared)	4 (4 shared)	2
Mixer	Independent for each output channel		
Volume	30 to 92 dBA in 0.1dB steps and mute		
Equalizer	20 1/3rd octave bands		
<b>Volume Control Knobs</b>			
Nb. Inputs	2		
Mixer	Independent for each output channel (Sound Masking and/or Paging and Music)		
Volume Range	User defined		
<b>Volume Schedule</b>			
Schedule	24 hour periods per day, 7 days		
Volume	0.1dB steps		
Transition Ramp	Instant, 2m30, 5min, 10min, or 15min		
Schedule Mixer	Independent for each output channel (Sound Masking and/or Paging and Music)		
Daylight Saving Time	Automatic Adjustment depending on local time zone settings		
<b>Monitoring</b>			
Diagnosis	Automatic		
Reporting	System diagnosis report sent by email and/or stored locally		
Requirement	Computer running Project Manager Software		
<b>LEED</b>			
Feature	Controller can be put in low-power mode according to daily schedule		
Schedule	7 daily periods per week (user defined)		
<b>Connectivity</b>			
USB	USB 2.0, Mini B connector		
Wifi <sup>2</sup>	802.11b/g/n, WEP 40/64-bits or WPA/WPA2 personal, 450 kbps		
Ethernet	DHCP or Static IP, 350 kbps		
<b>Power</b>			
Input	24 VDC		
Rating	50W	25W	15W
Power-Supply	EA-1050		
<b>Physical</b>			
Dimensions	245mm x 135mm x 28mm (10" x 5.3" x 1.1")	191mm x 135mm x 28mm (7.5" x 5.3" x 1.1")	
Weight	400g (0.9lb)	300g (0.7lb)	
<b>Certifications</b>			
Compliance	ETL Listed 3191772		
Safety	UL 62368 / ULC 62368		
Fire Test	UL 2043		
Electromagnetic	FCC – EN 55103-1&2		

1: A shared input can be an active volume control sensor input OR a paging/music input.

2: Wifi module can be disabled if it's not required