

# **ML-SL Series Controller**

## smartSMS-NET Sound Masking System

#### Each **ML-SL** 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



- 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	SL48-8ch	SL24-8ch	ML24-4ch	SL24-4ch	ML12-2ch	
	Charles and the						
Can be a Project Master?	YES	NO	NO	YES	NO	YES	
Outputs							
Nb. Outputs	8	8	8	4	4	2	
Max Speakers/Output	6	6	3	6	6	6	
Max Speakers/Controller	48	48	24	24	24	12	
Sound Masking							
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						
Active Volume Control							
Nb. Inputs <sup>1</sup>	8 (4 shared)	8 (4 shared)	8 (4 shared)	4 (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	SL48-8ch	SL24-8ch	ML24-4ch	SL24-4ch	ML12-2ch			
Nb. Inputs <sup>1</sup>	4 (4 shared)	4 (4 shared)	4 (4 shared)	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								
Volume Control Knobs									
Nb. Inputs	2								
Mixer	Independent for each output channel (Sound Masking and/or Paging and Music)								
Volume Range	User defined								
Volume Schedule									
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								
Monitoring									
Diagnosis	Automatic								
Reporting	System diagnosis report sent by email and/or stored locally								
Requirement	Computer running Project Manager Software								
LEED									
Feature	Controller can be put in low-power mode according to daily schedule								
Schedule	7 daily periods per week (user defined)								
Connectivity									
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								
Power									
Input		24 VDC							
Rating	50W	50W	25W	25W	25W	15W			
Power-Supply	EA-1050								
Physical									
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)					
Certifications									
Compliance		ETL Listed 3191772							
Safety		UL 60065 / ULC 60065							
Fire Test	UL 2043								
Electromagnetic	FCC – EN 55103-1&2								

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



<sup>2:</sup> Wifi module can be disabled if it's not required