

## ΙΛԵΓΟΟυCԵΙΟΛ

### ерисаье шібн ессер

Audio intelligibility is a key factor in the learning process. A professional audio system should fill a classroom with clear and even sound so every single student understands every word of a speech. For this reason sound quality should be a priority in a classroom installation.

Moreover a good quality and well-designed sound system brings benefits not only to students but also to teachers. A well designed and balanced system reduces vocal strain and fatigue, overcomes background noise easily and improves classroom management by increasing efficiency. This reduces the need for repetition, reduces the likelihood of confusion and holds the listeners attention more effectively. There is a strong link between clear, well understood instructions and a students ability to process, apply and retain them. Removing the barriers to effective learning should begin with the senses and our hearing plays a significant part in this.

If we jump from speech intelligibility to music as a way to increase skills we should remember the words of the Greek philosopher Plato: "Music gives a soul to the universe, wings to the mind, and life to everything."

The art of listening is key to receiving information, advice and instruction and the use of music to enhance other forms of communication is effective and well established in education.

Despite this for many years Education has struggled with poor quality sound production linked to crackling radio broadcasts, cheaply made video programmes and computer/ whiteboard speakers. The direct benefits of music in the classroom can be so easily eroded by reproducing sound badly, Poor quality music serves only to distract and detracts from learning.

Schools and classrooms are all about learning. They are about discovering information, acquiring skills and asking questions and in order to achieve this purpose schools are constantly striving to improve the learning experiences of their pupils. Research indicates that music integrated into classroom routines and practice can enhance learning by heightening thinking, processing and memory skills.

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Music is an enriching and valuable academic subject. A quality music education can improve self-confidence, behaviour and social skills, as well as improve academic attainment in areas such as numeracy, literacy and language. We know that music can stimulate anticipation, build atmosphere and so establish a positive learning state. The rhythmic elements of music can facilitate and promote effective memorisation, and the multisensory dimension of using music to layer other sensory triggers for learning helps energise the learning process. Many schools use music to prepare children for a focused activity and to sustain and focus concentration for extended periods of time.

Music allows pupils to release tension and provides a universal means of communication for emotions and expression of self. In the classroom carefully chosen background music can effectively enhance imagination and provide a vehicle for release of tension and feelings. In association with dance and drama, music compels movement in people and builds expressive skills and control and awareness of emotional states that will impact throughout their lives.

Finally another beneficial area of music for children is music therapy. For many children with Special Needs this essential therapy is a means of acquiring basic skills in other areas.

### BENEFITS OF USING ECLER AUDIO SOLUTION

#### RELIABILITY

Only 0,7% return on warranty. One of the lowest of the industry. Forty five years of know –how in professional audio solutions

#### SOUND QUALITY

Using SPM Technology (Switching Power MOSFET) in audio amplification improves the sound experience. This patented technology has been chosen the best sound quality in the industry by the prestigious German magazine Production Partner

GILGIARO DESIGN AUDEO speaker cabinets have been designed by the famous Italian industrial designer Giugiaro (www.italdesign.it). Giugiaro has designed more than 200 cars in 40 years (Volkswagen, Fiat, Ferrari, ...) as well as some other products for brands like Nikon, Motorola,...



#### REMOTE CONTROL

Would you like to control all your audio systems (classrooms, lecture theaters, sports hall, different buildings...) from a single screen? ECLER digital matrix
MIMO 88 and NZA zone amplifiers can be controlled via Ethernet with EclerNet
Manager software

audeo series

UNIVERSITÉ PAR

**GREEN** We save energy thanks to higher efficiency of SPM patented technology (74% efficiency against 50% efficiency of traditional bipolar transistor technology used by most of audio amplifier manufacturers). We use non contaminant components. All of them lead free We recycle materials. 70% of our packaging is recycled

If NZA amplifiers are used we can save up to 61% energy in comparison with an standard amplifier

### CONFIGURATION EXAMPLES

MPA6-150R

5° CH2 TO 5° CH4 TO



SPMTED-

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# CONFIGURATION EXAMPLES

CHANNEL 4

CHANNEL 1

CHANNEL 3

CHANNEL 3



CHANNEL 6

CHANNEL 5

NZA6-70 NETWORKABLE ZONE POWER AMPLIFIER

	LECTURE THEATRE (250 seats)	Low Z	Low Z - Networkable	and a second sec	ligeater	TRESPOSE
		1 MIM088 2 UMA112i (350 W) 2 DACORDH206i (220 W) 1 MPA4-400R 2 UMASB118i (500 W) 1 MPA4-400R 6 DACORDT208i (300 W) 1 MPA6-150R	1 MIM088 (Conference) 2 UMA112i (350 W) 2 DACORDH206i (220 W) 1 NXA4400 2 UMASB118i (500 W) 1 NXA4400 6 DACORDT208i (300 W) 1 NXA6200			
	-		SPORTS HALL AND	70/100V line + Low Z	70/100V line + Low Z	
ecre,				1 MIM088 60 IC6 (15 W) 20 AUDE0106 (30 W) 2 HSA2400 6 CKL110T (350 W) 2 CKLSM115T (600 W) 2 DPA4000T	- Networkable 1 MIM088 60 IC6 (15 W) 20 AUDE0106 (30 W) 1 NXA4700 (bridged) 6 CKL110T (350 W) 2 CKLSM115T (600 W) 2 NXA4700	
						ZONE

### REFERENCES

### SOME OF OUR CUSTOMERS

Surrey University – UK (www.surrey.ac.uk) Bournemouth University – UK (www.bournemouth.ac.uk) Universitat Autonoma Barcelona – Spain (www.uab.es) Universidad Politécnica Madrid – Spain (www.euiti.upm.es) Universitat Ramon Llull, Pompeu Fabra Barcelona – Spain (www.url.edu)

ESADE Business School Barcelona – Spain (www.esade.edu) ESCAC Escola Superior de Cinema i Audiovisuals de Catalunya – Spain (www.escac.es)

Universitá di Roma – Italy (www.uniroma1.it) Université Paris 5 - France (www.parisdescartes.fr) Université Paris 13 – France (www.univ-paris13.fr) Swiss Federal Institute of Technology Zurich - Switzerland (www.ethz.ch) Fraunhofer Institute for Integrated Circuits – Germany (www.iis.fraunhofer.de) Georg-Simon Ohm University of Applied Sciences – Germany (www.ohm-hochschule.de) Karadeniz Technical University- Turkey (www.ktu.edu.tr) Kolej Universiti – Malaysia (www.ump.edu.my) Universiti Malaysia Sarawak – Malaysia (www.unimas.my) Mackay Medicine, Nursing and Management College – Taiwan (www.mkc.edu.tw) University of Seoul – Korea (www.uos.ac.kr) National High School of Traditional Arts – Korea (www.kugak-am.hs.kr) Andong University – Korea (www.andong.ac.kr) Jeju University – Korea (www.jejunu.ac.kr) **University of Science & Technology – Korea** (www.ust.ac.kr) Xiamen University – China (www.xmu.edu.cn/) Huagiao University - China (www.hgu.edu.cn/)

Qinghai Institute of Salt Lakes – China (www.isl.cas.cn)







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Motors, 166-168 08038 Barcelona - Spain - (+34) 932238403 information@ecler.es www.eこler.com



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All product characteristics are subject to variation due to production tolerances. NEEC AUDIO BARCELONA S.L. reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications.