AV education

AV teaching aids for schools, colleges, universities & specialist training

Audio visual equipment designed for the education sector

Smart-e

Professional Audio & Video Distribution & Switching Equipment

AV for teaching

What are remote teaching & interactive learning solutions?

AV solutions from Smart-e gives schools, colleges, universities and specialist training centres the opportunity to provide state-of-the-art teaching vehicles, which in addition to providing clear and concise classroom aids can be tailored to provide remote teaching (allowing a tutor located anywhere in the world to display themselves and content to multiple schools and classrooms simultaneously), as well as interactive teaching where information is displayed alongside a student's computer and enables them to interact with the lesson, comparing their work with the instructor's, directly on their screen.
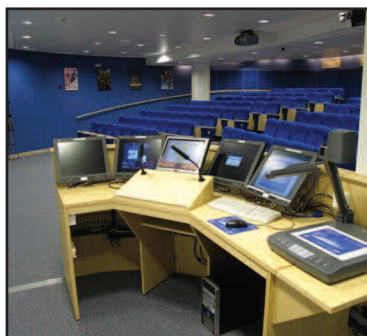
AV teaching aids are used for:

- Remote teaching across schools
- Interactive learning
- Targeted teaching
- Mixing AV teaching aids
- Flexible teaching
- Grouping differing abilities
- PCs used for a more visual aid
- Group or individual learning

Targeted teaching

Teaching levels, and/or subjects can be targeted to individuals and/or groups within the same classroom, at the same time.

Remote teaching

A system can be used to maximise teaching resources through remote teaching. A tutor located anywhere in the world can display themselves and content to multiple schools and classrooms simultaneously. This is especially beneficial where classrooms are located in remote areas and access to teaching staff is limited, where specialised tutoring is not available locally, or for interactive lectures from international specialists.

Interactive learning

Information can be displayed alongside a student's local computer, allowing the student to interact with the lesson and compare their work with the instructor's, directly on their screen.

remote teaching

How does it work?

Use a variety of source devices to get information across to students. With the Smart-e solution you can use a mix of DVDs, visulizers, training videos, content live from the Internet, the latest High Definition terrestrial and satellite TV programmes, and of course a PC, to get your message across. Images from all the devices (up to three at the same time) can be displayed on either an individual student PC screen, transmitted onto a shared projector screen, or LCD or plasma TV screen.

interactive learning

CAT 5* refers to CAT 5, 5e, 6, 7 and 8 structured cabling

Smart-e

Remote teaching

Maximise teaching resources through remote teaching. A tutor located anywhere in the world can display themselves and content to multiple schools and classrooms simultaneously.

Targeted teaching

Teaching levels, and/or subjects can be targeted to individuals and/or groups within the same classroom, at the same time.

Global Remote Teaching via Video Codec

SNX-8x8+
Video Server
Blu-Ray
DVD Player
Teacher's PC

Ceiling Mounted projector

CAT5 Conduits

CAT5 Cables (Hidden in Floor)

Mixing AV teaching aids

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Interactive learning

Information can be displayed alongside a student's local computer, allowing the student to interact with the lesson and compare their work with the instructor's, directly on their screen.

"It has been shown that students' ability to digest information is better when the information is targeted directly towards the student rather than to the class as a whole"
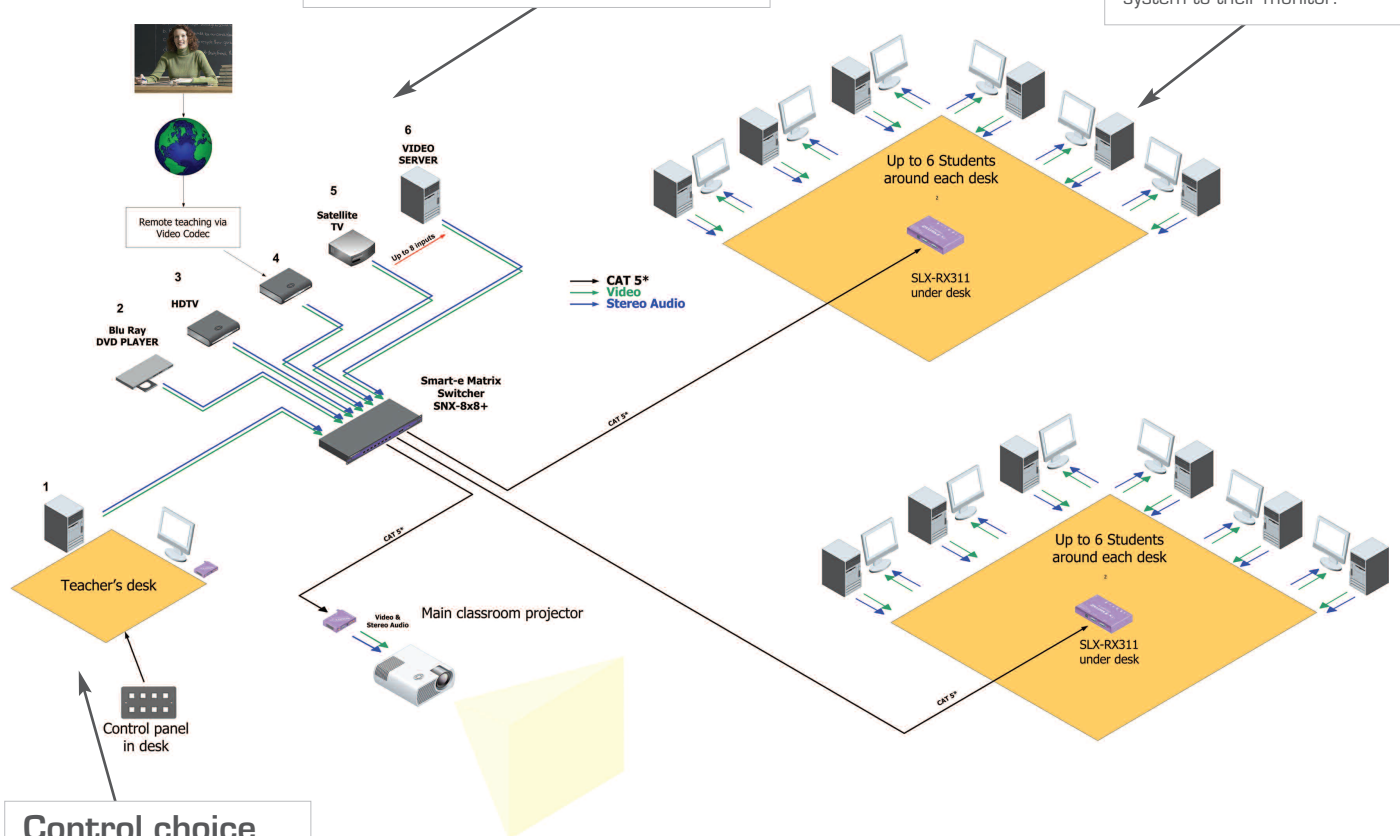
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Mixing AV teaching aids
The teacher can select any one of 8 audio visual devices (including themselves) to 8 group desks.

Selection
Each student can select either their own PC or the central system to their monitor.

Remote teaching via Video Codec

6 VIDEO SERVER

5 Satellite TV

Up to 8 inputs

3 HDTV

4

2 Blu Ray DVD PLAYER

CAT 5*
Video
Stereo Audio

Up to 6 Students around each desk

SLX-RX311 under desk

Smart-e Matrix Switcher SNX-8x8+

CAT 5*

1

Teacher's desk

CAT 5*

Video & Stereo Audio

Main classroom projector

Up to 6 Students around each desk

SLX-RX311 under desk

CAT 5*

Control panel in desk

Control choice
Control can be via a software application or simple control panel.

Control & select

A teacher has full control of the system and can dictate content to each student group. Using a simple control panel there are two levels of control function.

• From the control panel the teacher can select any of the eight AV devices to any or all the desk groups – multiple desk groups can see the same image and sound.

• A teacher can decide which of the desk groups view the centralised image and/or their own PC.

Teacher's desk
Smart-e matrix is the centre of the system providing all the necessary switching functionality

The above Smart-e solution has been incorporated into a desk construction with five PC stations which allows AV selection between the students and the central AV resources. This example show 5 stations, however up to 6 students could share this configuration, selecting between local and remote AV soruces.
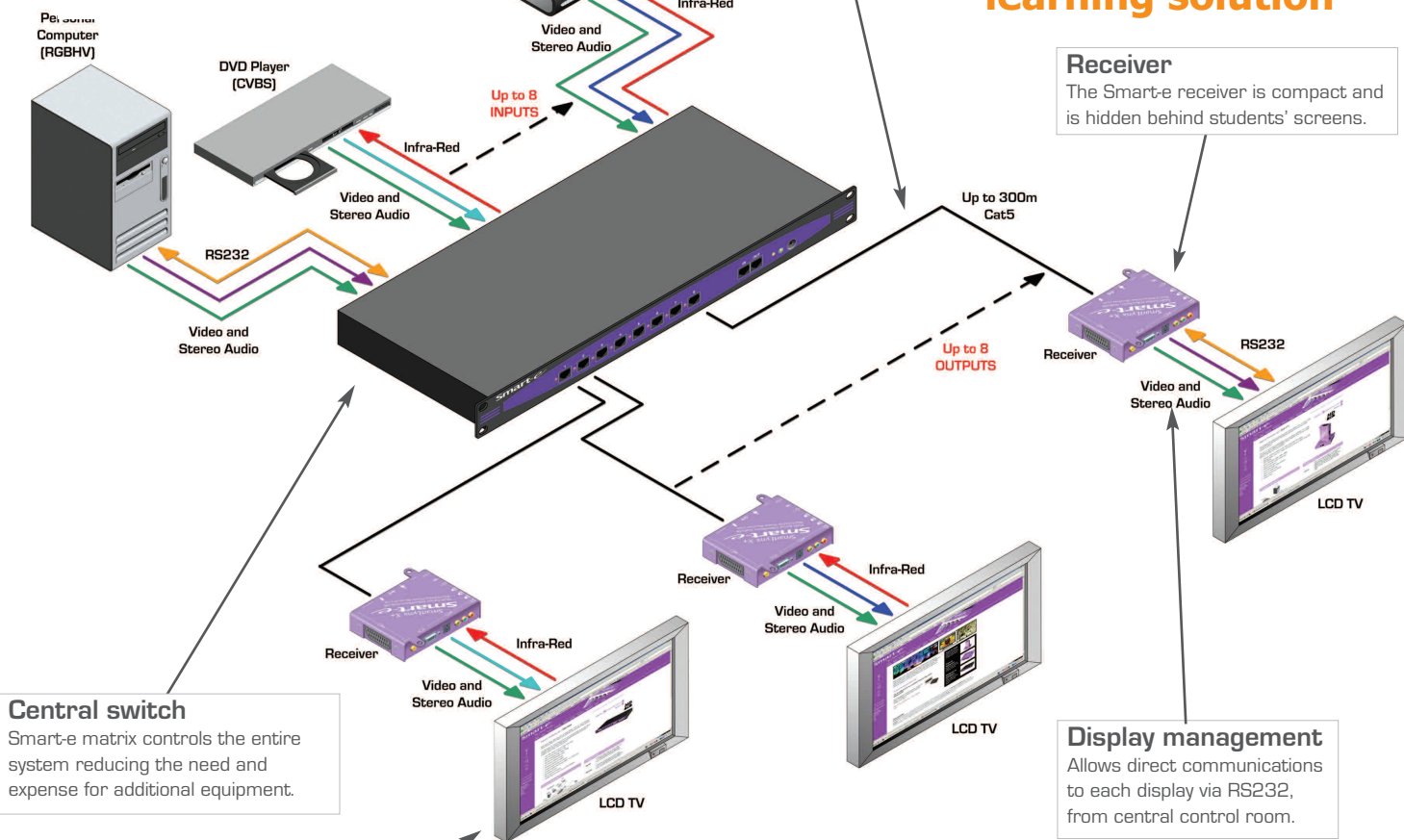
Smart-e

Personal Computer (RGBHV)

DVD Player (CVBS)

High Definition Set-top-box (YPbPr)

Infra-Red

Video and Stereo Audio

Up to 8 INPUTS

Infra-Red

Video and Stereo Audio

RS232

Video and Stereo Audio

Up to 300m Cat5

Up to 8 OUTPUTS

Receiver

RS232

Video and Stereo Audio

LCD TV

Receiver

Infra-Red

Video and Stereo Audio

LCD TV

Receiver

Infra-Red

Video and Stereo Audio

LCD TV

A typical Smart-e interactive learning solution

Single cable
Transmission, up to 300 metres from source, via a single CAT 5* cable, saves on cable requirements.

Receiver
The Smart-e receiver is compact and is hidden behind students' screens.

Central switch
Smart-e matrix controls the entire system reducing the need and expense for additional equipment.

In-line power
No need for bulky cables with in-line power which is reliable, space saving & kinder to the environment.

Display management
Allows direct communications to each display via RS232, from central control room.

3 year WARRANTY

Product list for above 3 screen example

Product	Quantity	Description
SNX-8x8	1	8 inputs/8 outputs matrix
SLX-RX212	3	Long-range receiver (up to 300 metres)
SLX-RX311	1	Control panel

Why choose Smart-e solutions ?

Smart-e has extensive experience of designing and manufacturing cost effective AV solutions. Our systems are:

Compact unit offers extra space saving qualities

Single cable technology is more reliable, space saving and frees up cable for other services

High Video Quality ideal for larger displays that provide more detail, and a clearer, sharper, more realistic picture quality

Display management allows direct communications to each display via RS232, from control room

In line power is highly reliable, space saving and kinder to the environment

Centralised AV resources means there is less clutter whilst providing a cost effective, 'greener', reliable system

Power saving scheduled screen on/off reduces power costs

Robust, all Smart-e equipment is built to last, and has a 3 year warranty

Ease of maintenance, all components can be replaced and/or maintained quickly and easily

CAT 5* cable, all Smart-e equipment is designed to work on CAT 5, 5e, 6, 7 and 8 structured cabling

Scalable options range from 1 to an infinite number of screens

Preventative maintenance, automatically tracks status of equipment, and alerts operator of low lamp life, loss of power etc., reducing downtime

Smart-e

About Smart-e Limited

Smart-e Limited is a UK designer & manufacturer of professional solutions providing integrated control of audio, video, computer, and IP, for use in corporate communications, presentation system, entertainment, remote teaching & interactive learning, security surveillance, digital signage, and marine environments.

Technically advanced UK design & manufacture

In-house expertise in the research and design of the hardware and software that drives the solutions, enables Smart-e to adapt to new technologies rapidly, whilst UK manufacture allows for shorter lead times and removes third-party reliance.

Available either off-the-shelf or adapted for specialist applications, Smart-e systems deliver the most comprehensive and technically advanced solutions for transmission of all formats of analogue and digital media over CAT 5 (5e, 6, 7 and 8) structured cabling, providing high performance, HDTV compatible links from PCs, laptops, DVDs, set-top-boxes, Blu-ray, visualisers, and cameras, to plasma and LCD screens, video walls, smartboards and projectors. New equipment is being developed all the time, so if you can't find what you are looking for, simply contact us.

3 year WARRANTY

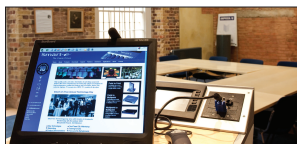**Smart-e SNX-16x16 distribution matrix**

The 'green' credentials

Centralising power to the matrix results in some impressive power consumption savings

■ Only one mains AC to DC conversion improves efficiency thereby lowering power consumption

■ Using an efficient low power DC-DC conversion in the receiver units, provides effective power conversion from 24V to +/- 5V

■ RS232 passthrough allows displays to be turned off when inactive

AV solutions from Smart-e

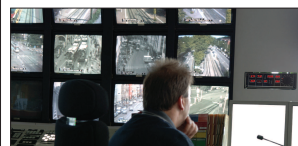**Presentations Systems**

Corporate Comms.

Digital Signage

Entertainment Systems

Interactive & Remote Teaching

Security & Surveillance

Smart-e