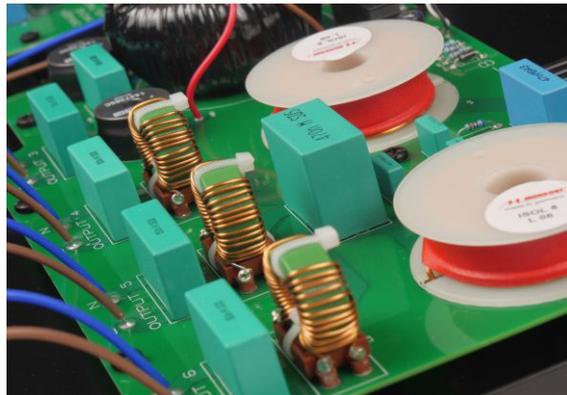


# ISOL - 8

Isolate, *ī SŌ-lāt*, v.t. to render free from external influence

## MINISUB CHROMA



# Power: The Primary system component



Power is the primary component, it is the foundation on which your system is built. The quality of the mains supply is the first important issue. Mains borne noise from connected appliances, DC components, harmonic distortion and RFI are all introduced to the grid by other users, ever present at your wall outlet. How this noise affects your equipment is complex and down to many factors and the mains input of your equipment is not where the problem ends. The second issue is the quality of the power supplies within your system's components. These are inevitably not perfect and have a major influence on how your system performs in the real world.

Let's look more closely at the linear and switching power supplies we find in any system component. We see transformers that are able to pass energy in either "direction" over a broad range of frequencies dependent on their design and manufacture. Diode rectifiers create noise as current is pulled hard in packets from the supply to charge the main reservoir capacitors. A typical power supply actually generates noise which must be suppressed. There is also local noise generated by the working circuits themselves. Any attempt to filter all this noise by the internal power supplies will be only partially successful.

Why? Because real world does not even closely approach theoretical ideals. The electronic components used in manufacture to try and deal with these problems are not perfect. For example any capacitor has load and temperature related effects, equivalent series resistance, inductance, and thus self resonance too; all of which conspire to reduce their effectiveness and cause interaction with other circuit elements in unpredictable ways, especially at radio frequencies. Subject even the best equipment to scrutiny and inevitably you will find it has been built to a price. It will have a power supply that has partial transparency to external electrical noise, elements that actually make noise, and finally active circuits that are vulnerable to noise to some degree.

This is where ISOL-8's expertise provides substantial opportunities to release performance through mains conditioning. Performance that has been lost to real world compromises in the design and manufacture of your system; providing a firm foundation of clean power.

# Pure Power for AV

The MiniSub is the corner stone of ISOL-8. It perfectly encompasses our philosophy of combining outstanding value for money with great power conditioning performance.

The MiniSub Chroma brings the same giant killing, system wide performance boost to AV systems that made the MiniSub Wave and MiniSub Axis so popular. It incorporates many of the technologies featured in the acclaimed SubStation range with help from the VMCI080.



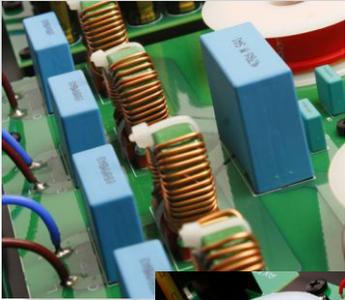
The MiniSub Chroma retains the separate filter stages for each source outlet that made the original such a ground breaking product. One outlet is dedicated for video displays of all types.

With over 15 years experience in power conditioning, we design and engineer our products on solid engineering principles and manufacture in the UK to the highest standards .

A five year guarantee\* (UK only) backs up our commitment to providing world leading power conditioning solutions.

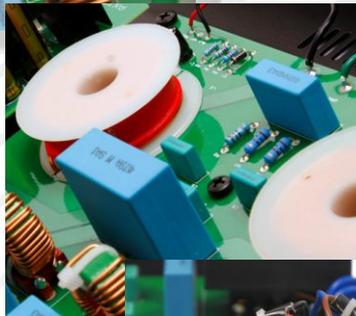
# Technology

ISOL-8's MiniSub Chroma brings many of the features found in our flagship SubStations to a wider audience, with a video specific outlet too, delivering a class performance that punches well above its weight.



## **Multiple Filter Sections:**

Each system component is not blameless and generates significant mains noise itself. By employing separate filters for each outlet, external noise and noise generated *from within the system* are both blocked. Each filter section can then be designed for its dedicated load and cross contamination from one component to another reduced. The optimum solution.



## **Transmodal Filtering:**

All mains filters are not created equal. ISOL-8 Transmodal filters are designed to combat all major types of transmitted electrical noise, both differential and common mode, without dumping it to earth. Asymmetrically present in Live and Neutral conductors, differential mode noise is costly to effectively attenuate and is often simply ignored by many other mains conditioners.



## **Video Optimised Filter**

Video displays generate significant quantities of broad band electrical noise from not only the display processing and drive circuits but also from their own internal switching power supply. The wide band Transmodal filter topology developed for the VMCI080 gives the Chroma the ability to suppress this performance degrading noise. This can give increased picture resolution and fewer motion artifacts.

*For further details see the technical sections of our web site or click on the links on the headings.*

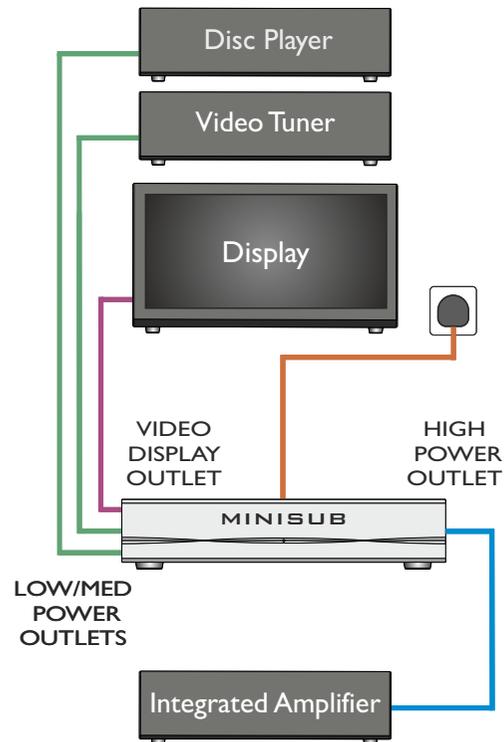
## **Spike and Surge Protection:**

The mains can exhibit short term voltage spikes and surges. These events can cause damage to unprotected components. ISOL-8 protects your valuable investment with an energy absorbing network, clamping dangerously high voltage peaks so you can enjoy peace of mind.

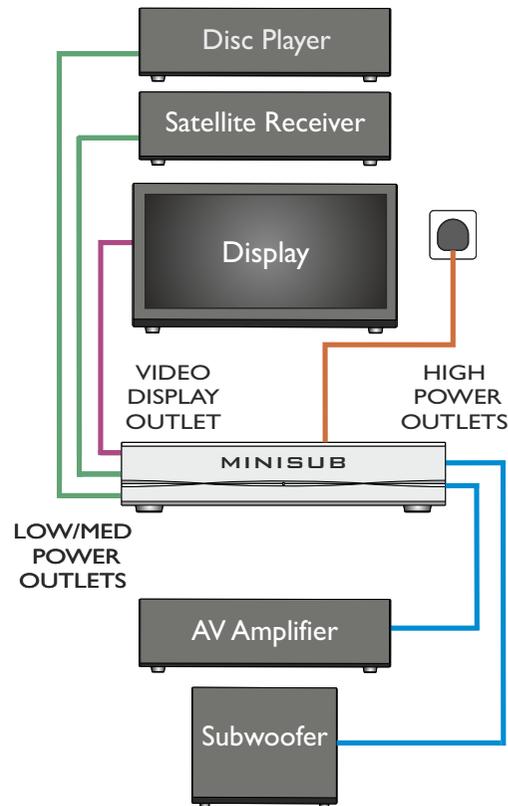
# Flexibility

The Minisub Chroma has the power and flexibility to supply, protect and effectively condition a very wide range of AV systems.

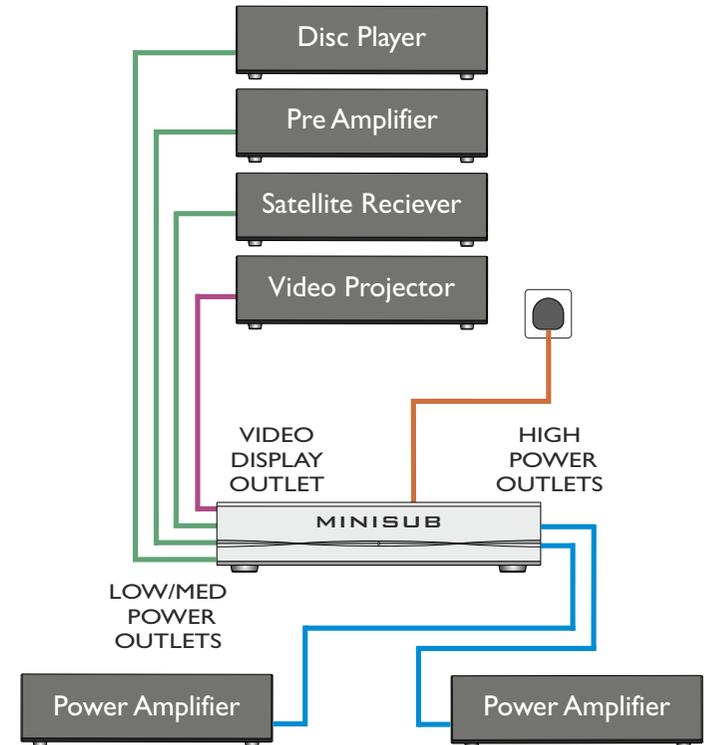
### System Example 1



### System Example 2



### System Example 3



# MiniSub Chroma

The MiniSub Chroma is a single box solution for conditioning an entire AV system. One outlet serves video displays of all types. Three outlets are for source components, each have individual Transmodal filters to combat noise cross contamination. Two high power outlets are cleaned by a low dynamic impedance high current filter.

Built to last with premium components including Evox capacitors, OFC Mundorf inductors, and custom ISOL-8 chokes, the MiniSub Chroma is the ideal solution to reclaim system performance lost to the negative effects of noise on the mains supply.

