PHABRIX Sx range

Battery Replacement Manual PHSXPN-1001

Release information

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PHSXPN-1001   19 May 2015

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RMAs

Units that are to be returned to PHABRIX for repair must have a Return Merchandise Authorization (RMA) number.

It is **IMPORTANT** that a RMA letter and number is issued by PHABRIX **BEFORE** the unit is returned.

To request a RMA number email;

 info@phabrix.com

ESD Protection

Please use anti static wrist straps and a properly grounded work area when servicing this product.

Avoiding Personal Injury

This instrument is serviceable by qualified personnel only.

No user serviceable parts are provided.

Units should be returned to your local PHABRIX agent for servicing.

The Operator should NOT remove the case from the unit.

Do not spill any liquid onto the unit or its power adaptor.

Power supply

Make sure that the unit is connected to the correct power supply voltage. A power supply adaptor is supplied with the unit which may be connected to any AC power supply between 100 and 240VAC at 50-60Hz. Only the supplied power adaptor should be used with the unit. Do not use a damaged AC cable with the unit as it may cause a shock or fire hazard. Replacement AC cables are available from your local PHABRIX agent.

If the battery is at too low a voltage for correct operation, the unit will not fully power up but will wait until the AC adaptor is connected. The LCD screen will display a warning message if this is true.

Operating Temperature

The unit should only be operated between 0 and 40 °Centigrade. If the unit is operated at a higher temperature there is a possibility of a fire hazard. If the temperature is changed rapidly from a cold environment to a hot environment, moisture can be created internally which can cause malfunction or damage the unit. Allow the unit to sit for 30 minutes without power applied to reduce any possibility of condensation.

Input/Output terminals

Do not connect the input or output BNC connectors to external power as this can damage the internal circuitry and cause the unit to work incorrectly.

When not in use

Disconnect the unit from the power supply and AC power source when not in use.

Maintenance

Wipe the case and buttons gently with a soft cloth lightly dampened with a neutral cleaning agent. A screen cleaning cloth may be used to clean the LCD. Do not apply force to the LCD when cleaning or it may become damaged.

⚠️ Remove the power supply from the unit and turn OFF before cleaning. Do not allow any water or other liquid to enter the unit while cleaning.

This manual describes how to replace the Lithium ion battery fitted to the Sx product range of hand held units.

Replacing the battery should take no longer than 30 minutes .

Before beginning work on the SX unit please observe the correct anti-static handling procedures.

Ensure the unit is switched off and the DC power lead is disconnected.

Only the disassembly procedure is described in this manual. To assemble the unit, reverse the process.

Tools

The Sx unit is a relatively simple assembly and requires few tools.

|	
#2 pozidrive screwdriver	Endplates / PCB fixing screws
Small flat bladed screwdriver	Loudspeaker
14mm box spanner	BNC retaining nuts
M3 box spanner	SxD/E fan and speaker bracket
M2.5 box spanner	SxD/E fan
Fine tip pliers	Keyboard locating pegs
Scraper	Removing battery foam

When replacing parts in the Sx range always replace the nuts and screws for new ones.

End cap removal

To expose the endplates and case fixing screws remove the rubber end caps. Gently peel them off each end remembering to prise them over the retaining lugs on each end plate.

Retaining lug
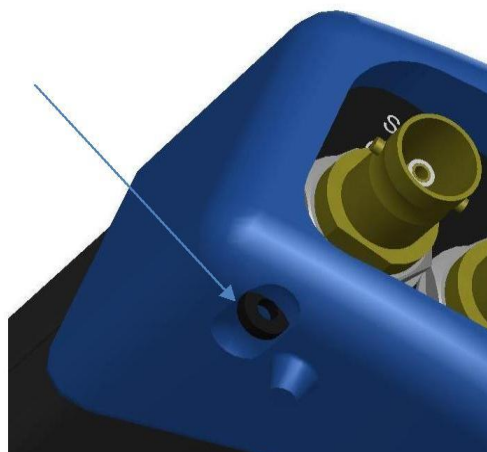
LAN end plate

Removing the LAN end plate does not require the case to be separated.

Remove the rubber end cap (see page 8) then remove the 4 countersink screws.


Remove and replace the LAN end plate.

Case separation

The printed circuit board that contains the BNCs is attached to the base metalwork so to separate the case remove the top 2 countersink screws on the BNC end plate and all screws holding on the LAN plate.

Each case half contains a printed circuit board connected via 2 multi-way connectors located under the row of switches. When separating the case, gently pull the 2 halves apart without twisting as this may cause damage. There is also a speaker cable linking the case halves in the SxA and fan and speaker cables in the SxD and SxE.

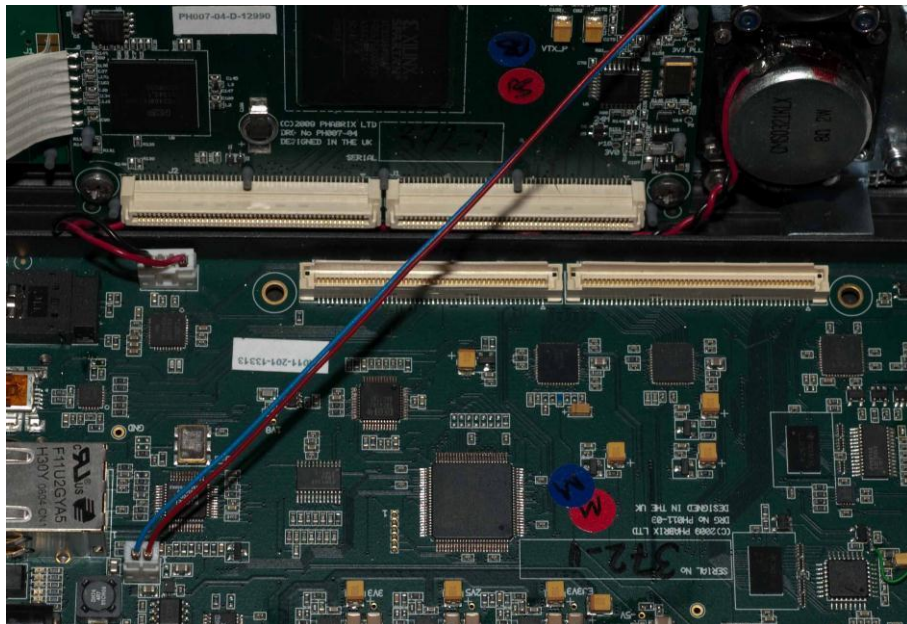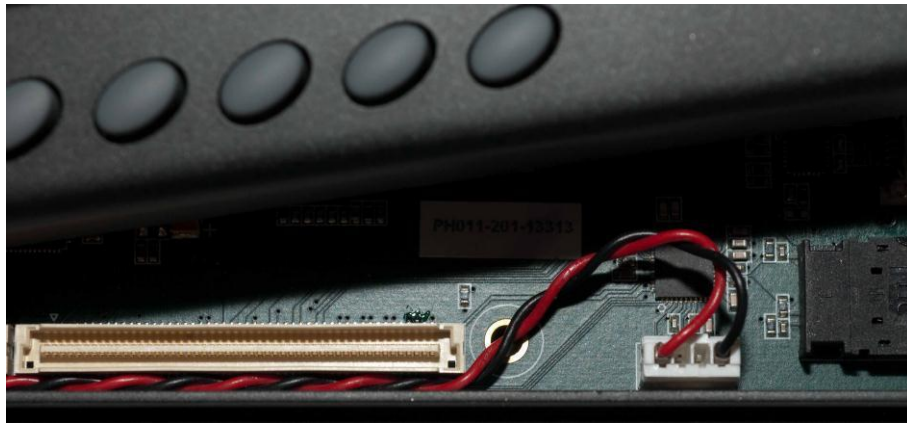Once apart disconnect the cables.

Multiway connectors
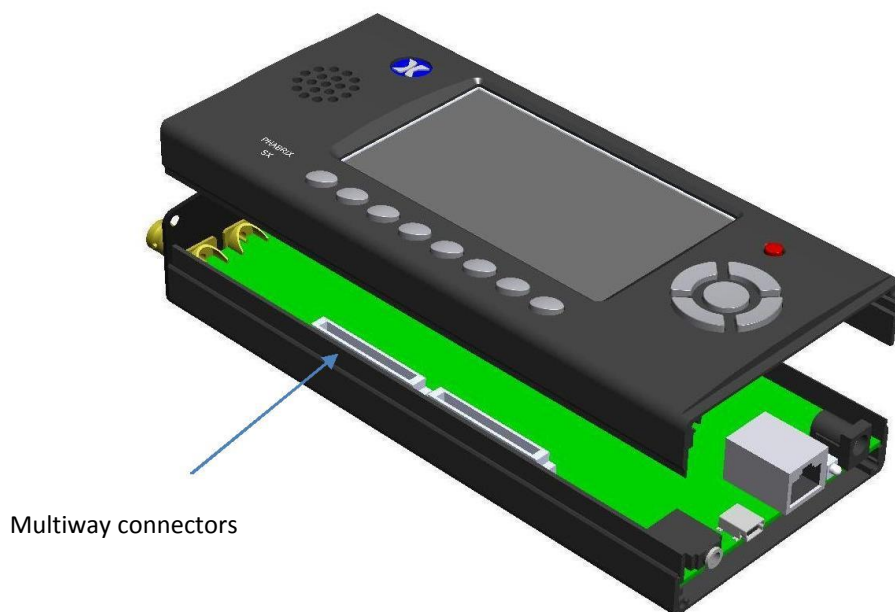
The speaker cable on the SxE is routed behind the multi way connectors. It is important that it is placed in this position when re-assembling.

Routing the speaker on the SxA and SxD is not important.

Cable routing



SxD and SxE internal connections.

To remove the video board undo the remaining 2 screws on the BNC endplate and the 2 pan head screws securing the board.

The edge of the PCB next to the multi-way connectors is located in a groove in the base metalwork. To remove the board gently rotate by lifting up the edge where the screw holes are located until the opposite edge becomes free from the retaining groove.

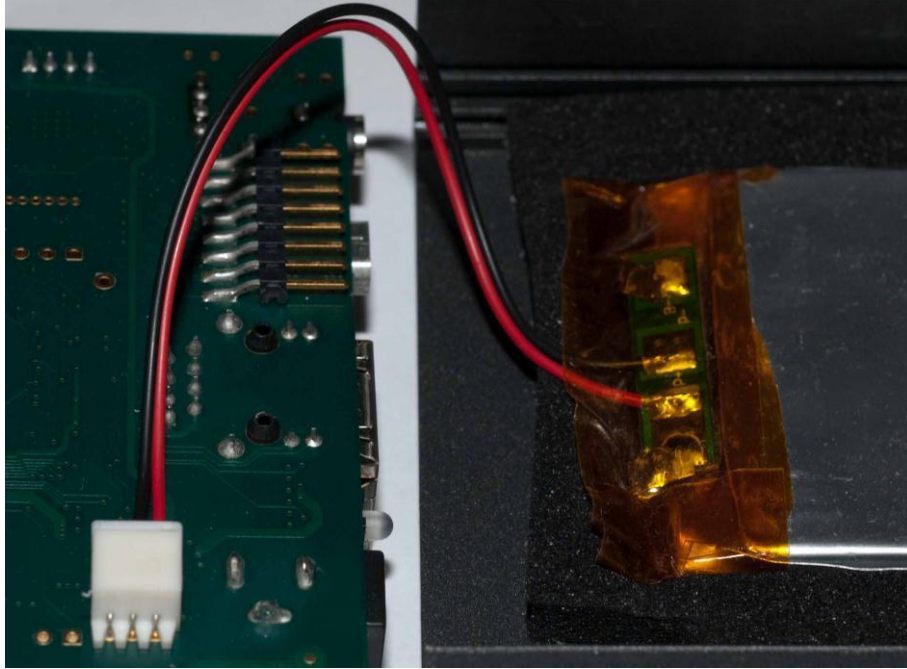The battery is connected to the underside of the video board.
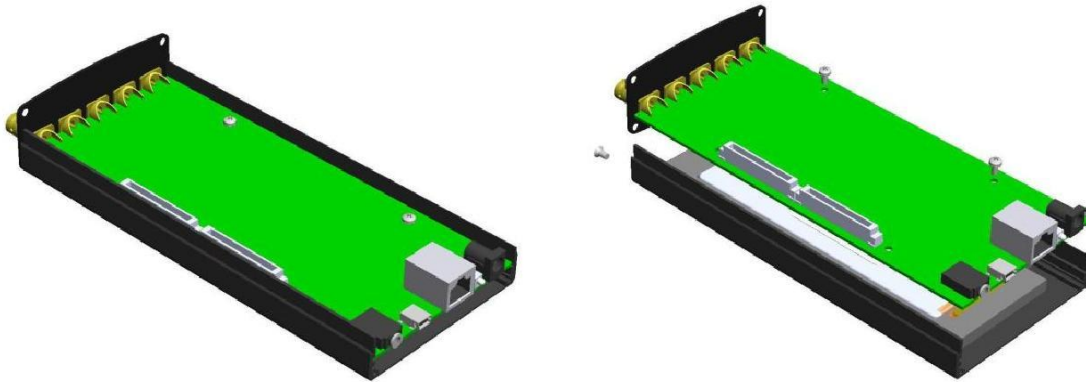

Video board retaining groove.
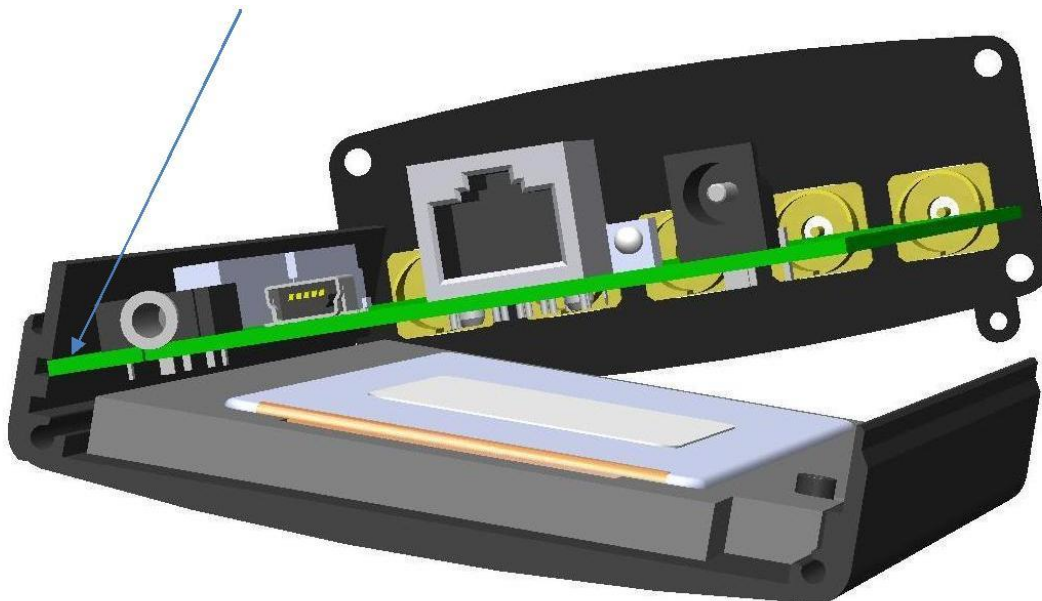
Battery connections

When refitting curl the cable inboard so it sits behind the pin strip connector and can't be seen when the LAN end plate is off.

The Li-Polymer battery is located in the base metalwork underneath the main video

board. To remove the board refer to the Video board section on page 12

The battery is connected to the underside of the video board.

Disconnect the battery then remove from the foam pocket.
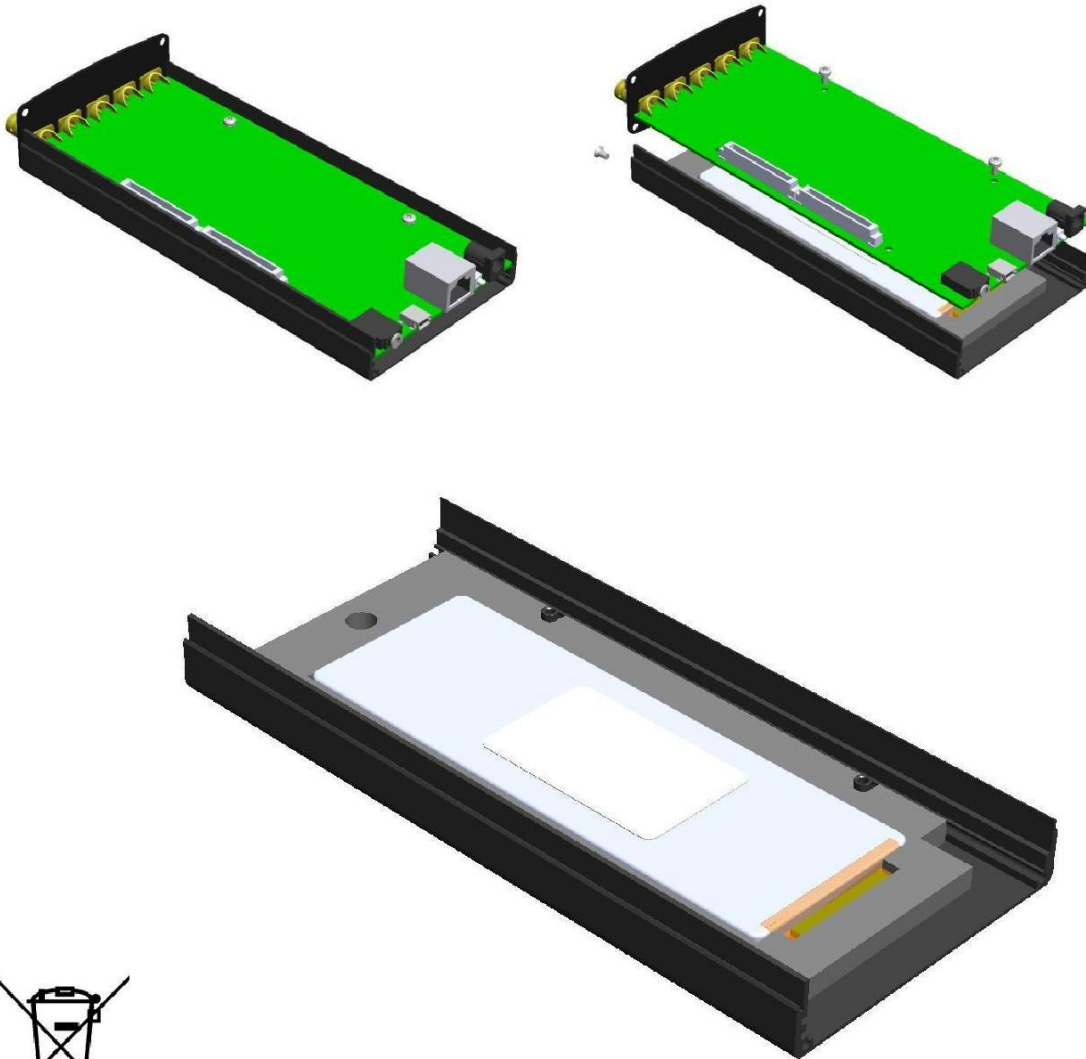
The Li-Polymer battery MUST be disposed of according to local regulations.

Battery Foam replacement

Before refitting the battery it is recommended to replace the battery foam as this may degrade over time.

Using a thin flat edge scrape off the existing foam to leave a clean surface.

Remove the backing off the adhesive side of the foam and fit into the base aligning the cut-outs with the inserts.
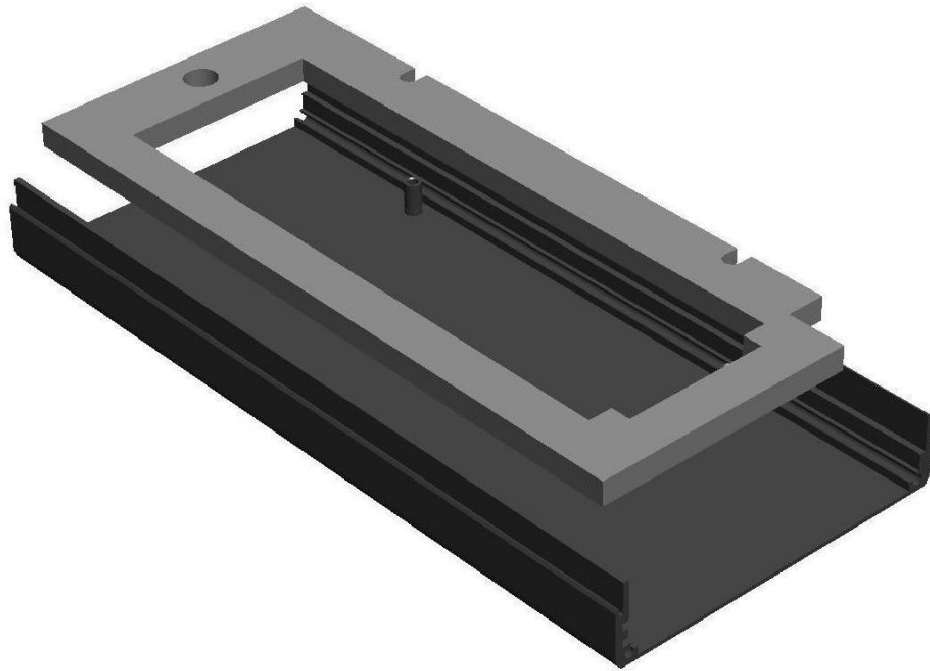
Refit battery then reassemble.

Lithium Polymer battery and Foam.   Part #   PHSXPN-1001

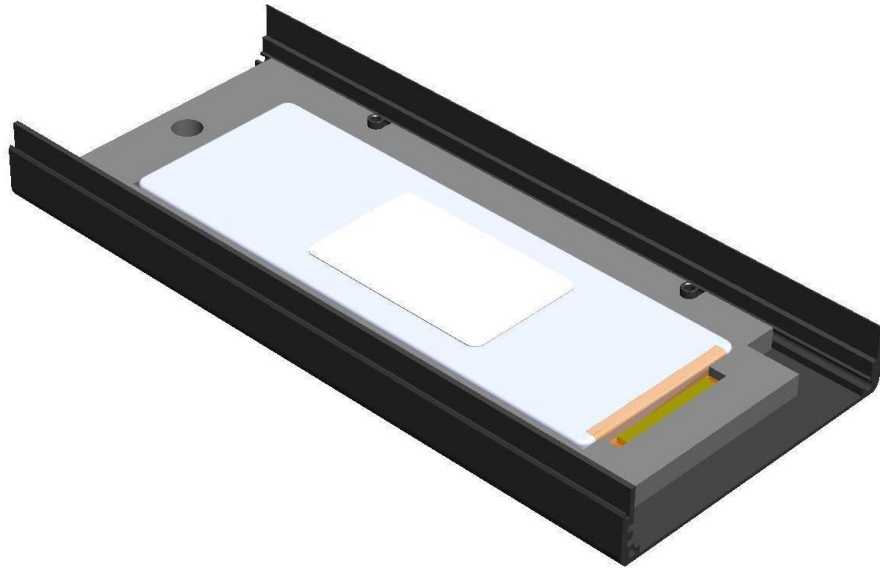## Operating conditions

External Power Supply

DC-5V 5V

Maximum Input signals

SDI input(s)   +/- 2V

REF input: +/- 2V

LCD Monitor

The LCD may have some pixels that are always turned ON or always turned OFF. This is normal and should not affect normal operation.

LCD Flicker

The unit supports many video standards. The input SDI signal is displayed asynchronously and may flicker on the waveform display or picture display. The unit stores the input SDI signal internally, and then reads the internal frame using the LCD sync signal, which is asynchronous to the input SDI signal. LCD flickering may occur if a frame is skipped or repeated.

Remote Network Operation

Remote network operation is only guaranteed when connected to a local machine.

Disposing of the unit

This product is subject to the European WEEE (Waste Electrical and Electronic Equipment) directive and should be disposed of according to the regulations of each country.

This unit contains a Lithium Polymer battery which should be disposed of correctly.

Specifications

LCD Display

Display Type	4.3 inch TFT colour
Display Format:	480 x 272 24 bits
Backlight	Variable brightness
Screen Saver	Reduces brightness after user adjustable time under battery operation.

SDI Inputs

Supported standards	525/59.94, 625/50, 720p/23.98,24/25/29.97/30/50/59.94/60 1035i/59.94/60 1080psF/23.98,24/25/29.97/30 1080i/50/59.94/60 1080p/23.98,24/25/29.97/30/50/59.94/60
Connector	BNC
Input Impedance	75 ohm terminated
Input Return Loss	>= 15dB (5MHz to serial clock frequency)
Maximum Input Voltage	+/- 2V

AES Inputs

Connector	BNC
Input Impedance	75 ohm terminated
Maximum Input Voltage	+/- 2V
Sample Rates	The input has a sample rate converter and so will accept any sample rate from 32kHz to 192kHz.

AES Outputs

Connector	BNC
Input Impedance	75 ohm terminated
Sample Rate	48kHz

External Reference

Input Signal	Tri-level or Bi-Level (black burst) syncs 50/59.94/60Hz
Connector	BNC
Input Impedance	75 ohm terminated
Maximum Input voltage	+/- 2V

External Control

Ethernet	IEEE802.3 100Mb/s
Ethernet Connector	RJ-45
USB	USB 1.1 OTG (On the go - simulates flash disk)
USB Connector	Mini-AB

Headphone Output

Connector	Miniature 3.5mm Stereo Jack

General

Environment	
Operating Temperature	0-40 °C
Operating Humidity	<85% RH (no condensation)
Power Requirements	AC 90-250V 50/60Hz 10W max
Dimensions	230 (L) x 93(H) x 45(D) mm
Weight	2kg
Accessories	Instruction Manual on CD AC Adaptor Power Cord Carry Case