



# Technical Data

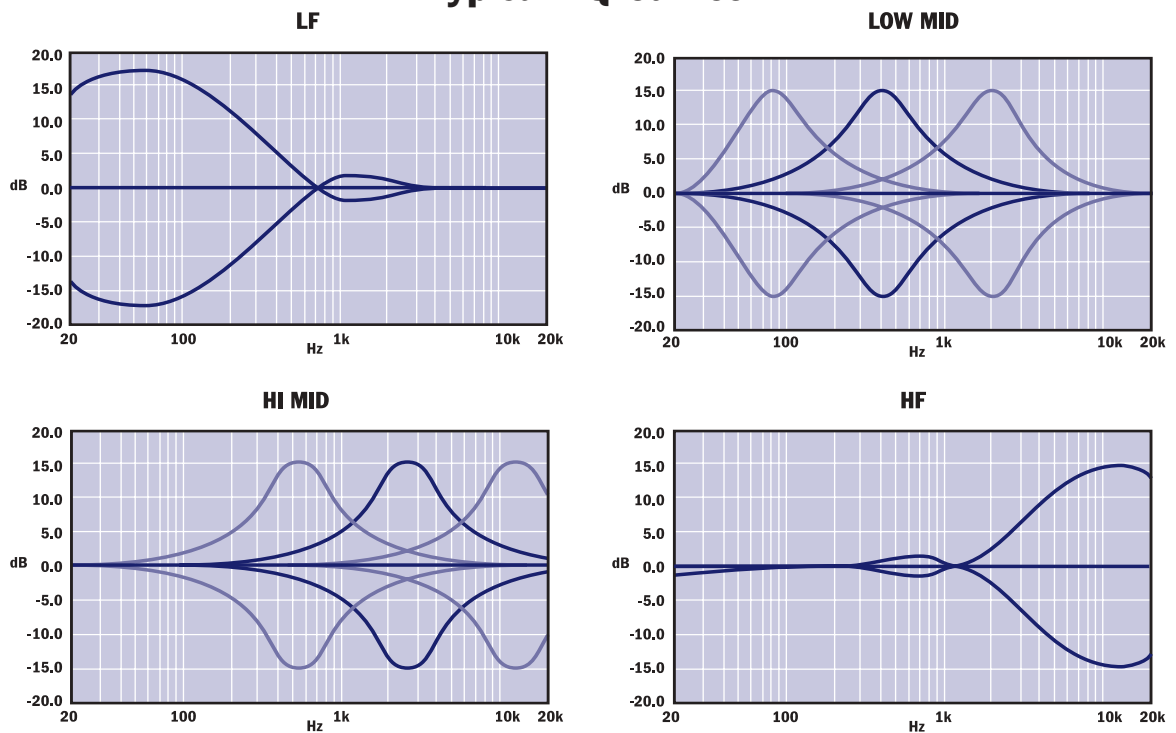
## Contents

|                   |     |                        |   |
|-------------------|-----|------------------------|---|
| Introduction      | 1   | Connectors             | 5 |
| Typical EQ Curves | 1   | Dimensions             | 6 |
| Modules           | 2-3 | Architects Spec        | 7 |
| Block Diagram     | 4   | Typical Specifications | 8 |

## Introduction

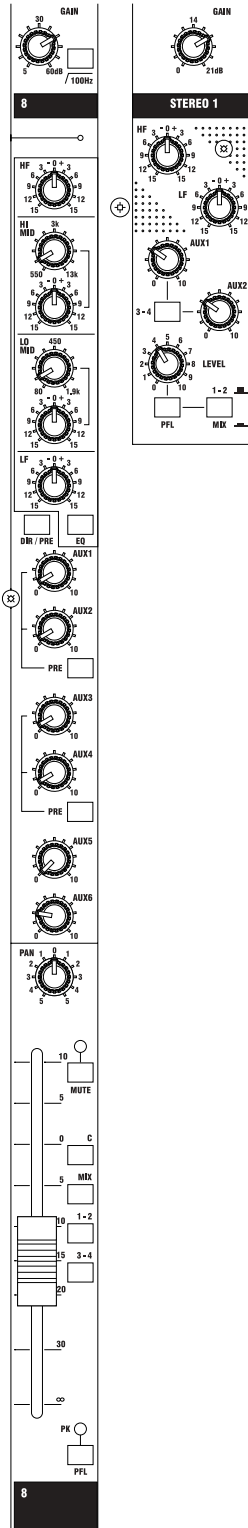
- 16, 24 and 32 channel frame sizes
- GB30 mic preamp and precision equalisation circuitry
- True 7-bus architecture
- 2 Stereo Inputs
- 2 Stereo Returns
- Channel direct outputs
- 6 aux sends, 4 of which are pre/post switchable
- Integral universal voltage, switched-mode PSU for light weight
- Talkback facility
- 100mm faders
- +48 phantom power
- 18dB/octave high pass filter
- Group and mix inserts
- 12-segment LED metering

## Typical EQ Curves



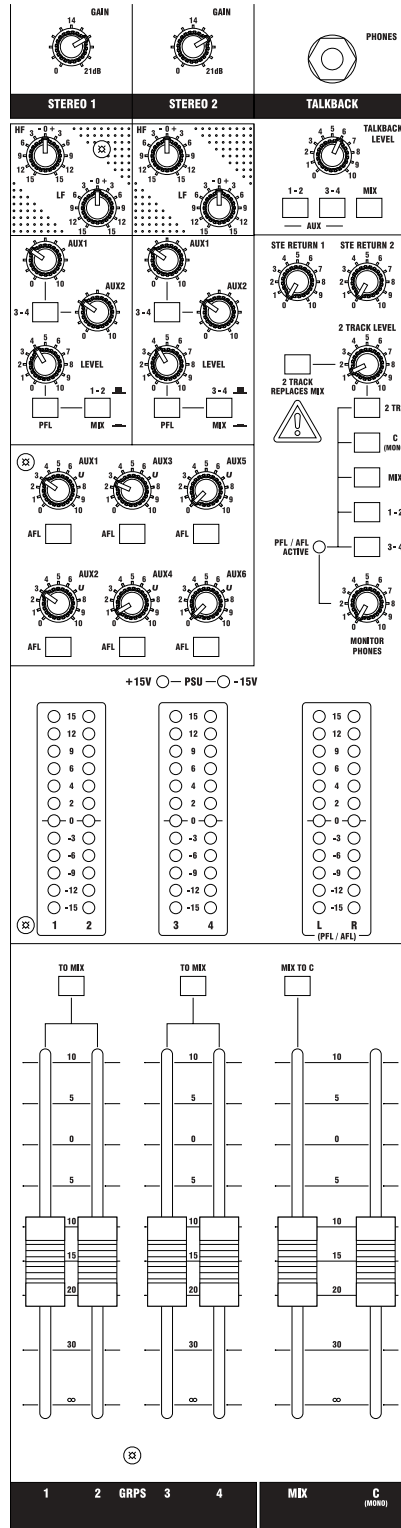


# Mono/Stereo Inputs



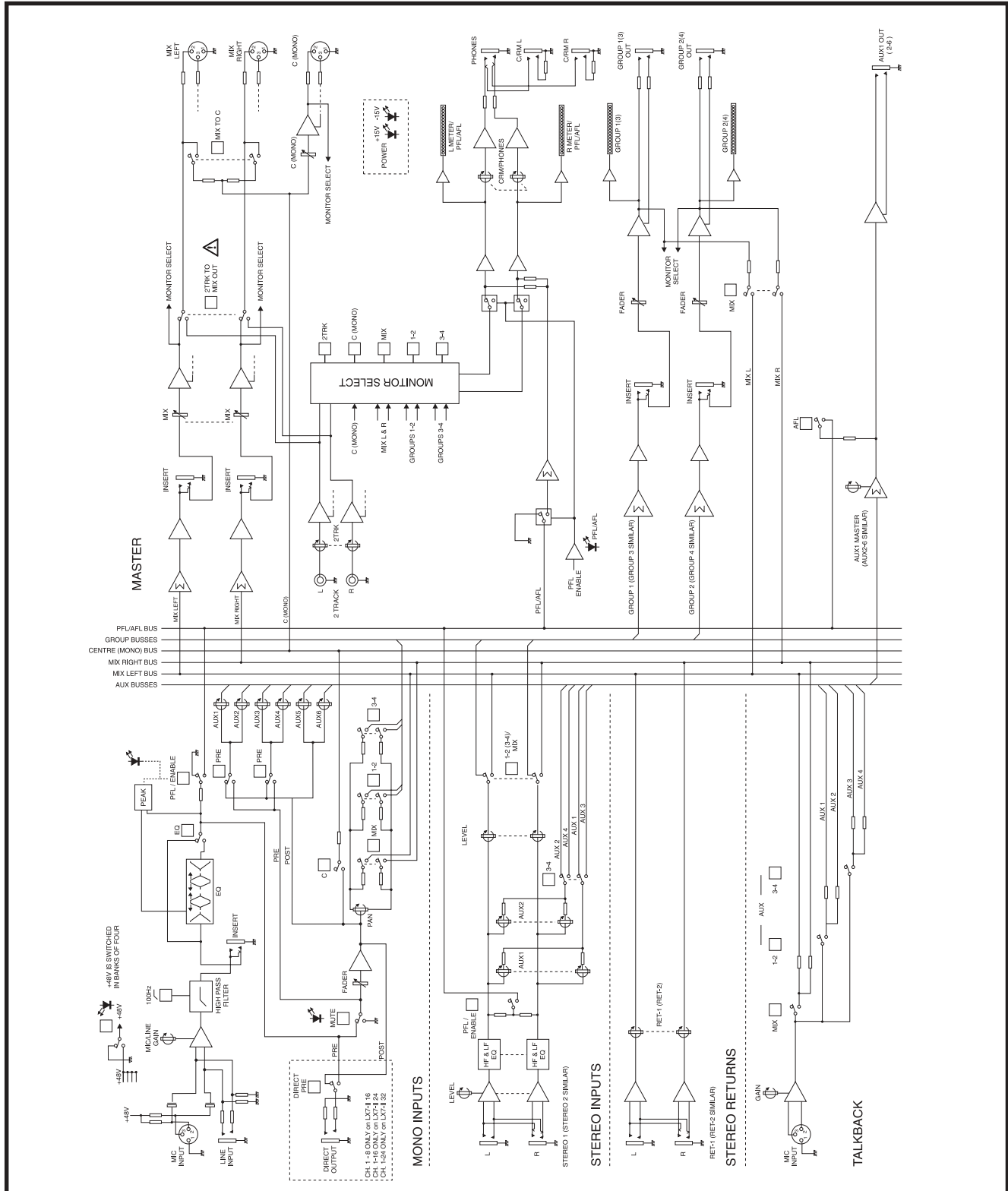


# Master Section



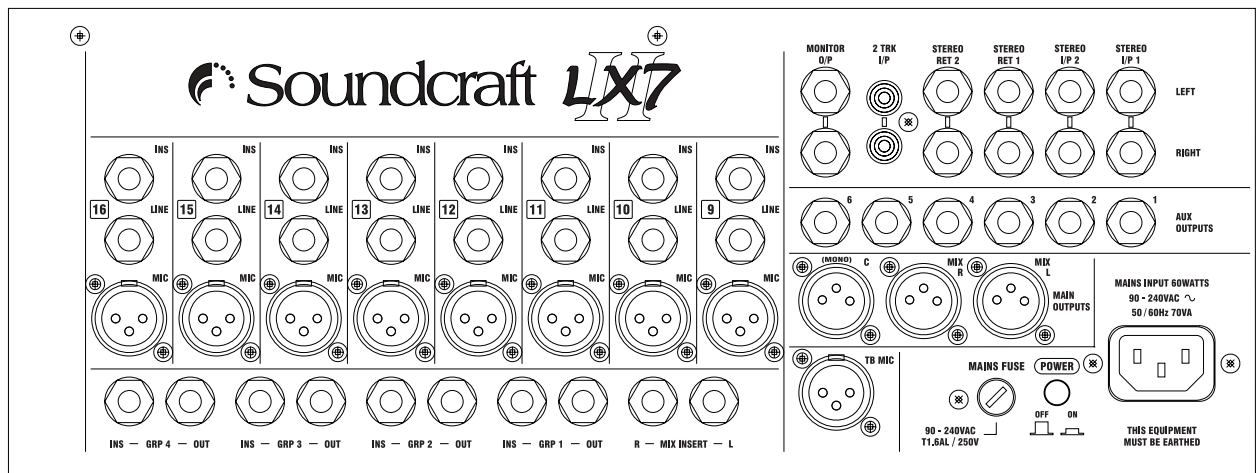


## Block Diagram



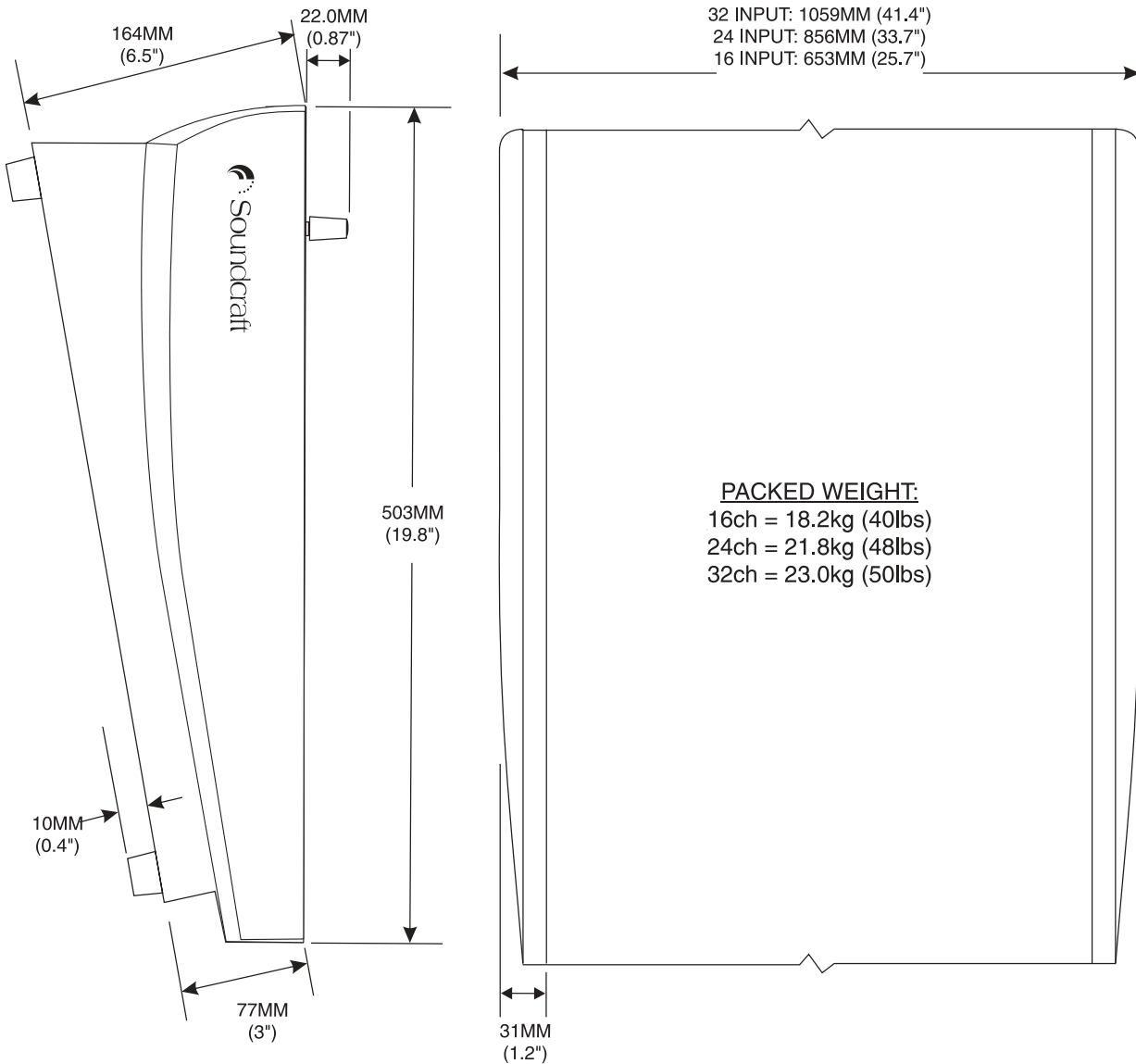


# Connectors





## Dimensions





## Architect's Specification

The Mixing Console shall be constructed in an all-steel chassis, with removable side cheeks, and shall be available in a 16, 24, and 32 input configuration. There shall be one main PCB for the channel and master section, and one PCB for I/O. There shall be Main Left/Right outputs, 4 Group outputs, a C (Mono) Output, and L/R Control Room outputs in addition to 6 auxiliary send outputs. Direct outputs will be provided for all but the last eight channel strips. There shall be 2 stereo effects return inputs, which default to Mono with only Left input applied. There will be 2 Stereo input strips with EQ, level and Aux sends, 2 stereo returns (to Mix), and an additional 2-Track input provided. A Talkback facility shall be included, assignable to the Aux sends and Mix outputs. The unit will utilize a switched-mode universal voltage internal power supply.

Each Mono Input shall have low-impedance balanced inputs via XLR sockets and line-level inputs via balanced ¼" connectors. Gain shall be continuously variable from 5dB to 60dB, and phantom power will be switchable in blocks of 4 input channels. There shall be a switchable 100Hz High Pass filter with an 18db per octave slope. The EQ shall be a 4-band type with a 2nd order shelving HF at 13kHz, 2<sup>nd</sup> order shelving LF at 80Hz, and two sweepable mid-range controls from 80Hz - 1.9kHz, and 550Hz - 13kHz respectively. The Q for Mid-range control shall be fixed at 1. Gain shall be cut or boosted by 15db on all bands (center detented). The EQ circuit shall be engaged via a switch. Six external Aux sends shall be provided. Auxes 1-4 will be switchable pre or post-fader in groups of two, and Auxes 5 and 6 will be fixed for post fade operation. All sends will be post-mute. There will be a Direct Output on all but the last eight channels, with switchable pre or post-fade signal output. There shall be a pre-EQ, pre-mute TRS ¼" insert point. Routing shall be assigned, post-pan, to the Mix, Mono Bus, Group 1-2, and Group 3-4 via a switch above each fader. Faders will be 100mm high quality type. There shall be a channel Mute switch and Mute LED indicator, as well as a PFL switch and LED indicator. The PFL LED will default to a Peak Indicator when the PFL switch is released.

Each Stereo input strip will have line-level inputs via two ¼" balanced TRS connectors. Stereo Channels will default to mono with only Left input applied. A continuously variable gain control from 0-22 db will be provided, as well as a 2 band Shelving EQ with frequency centers at 60Hz and 12kHz respectively. Gain shall be cut or boosted by 15db on both bands (center detented). Two post-fade Aux sends will be provided, with switchable routing to either Aux 1 and 2 outputs or Aux 3 and 4 outputs. Routing shall be assigned to the Mix or respective Group pair, Stereo Input 1 routable to Groups 1 and 2, and Stereo Input 2 routing to Groups 3 and 4. There shall be a PFL switch.

The Group sections shall have 100mm faders situated to the left of the Master faders. Outputs will be routed to dedicated balanced ¼" jacks with TRS insert points. A switch to route Groups to Mix will be provided. The Mono Bus will have a dedicated 100mm fader and dedicated balanced XLR output. A "Mix-to-Mono" switch will be provided, creating a summation of the Left and Right Master outputs in addition to the dedicated Mono Bus signal.

The Master section shall consist of one 100mm master fader which controls Left and Right master level. Six master Aux sends with AFL switches shall be provided, as well as 2 external stereo Aux returns which default to mono with Left input. Each Aux return will have a dedicated level control. A Headphone/Control Room monitoring section will be provided which will include dedicated level control and switchable monitoring from 2TRK, Mix, Mono, Group 1 and 2, or Group 3 and 4 outputs. There shall be a -10 RCA 2-Track input with dedicated level control. A switch will be provided to allow 2TRK input to override Main Mix Output. Headphone insertion shall override Control Room monitor feed. A Talkback facility, assignable to the Aux sends and Mix outputs shall be provided. There shall be a 12 segment multi-colored LED meter for the Group Masters, and Left / Right Masters, and a master AFL/PFL LED indicator shall be provided. Two LED indicators for Voltage monitoring shall be included. Master outputs shall be balanced XLR with ¼" TRS inserts available.

The console dimensions and weight shall be published in product literature according to frame size. The console shall be the **Soundcraft LX7ii**.



# Technical Data

## Typical Specifications

|  |  |
|--|--|
| Frequency Response   | XLR input to any output ..... +0/-1dB, 20Hz-20kHz  |
| T.H.D. & Noise<br>All measurements at +10dBu output<br>30dB gain | XLR input to Direct output ..... <0.007% @ 1kHz<br>XLR input to Mix output ..... <0.008% @1kHz   |
| Mic Input E.I.N.   | 22Hz-22kHz bandwidth, unweighted ..... <-128dBu<br>(150 Ohm source)  |
| Mic Gain   | Min ..... 5dB<br>Max ..... 60dB  |
| Bus Noise  | Mix output, input faders @ - $\mu$ , Mix fader 0dB<br>32 channels routed ..... <-85dBu<br>16 channels routed ..... <-88dBu<br>Grp output, input faders @ - $\mu$ , Grp fader 0dB<br>32 channels routed ..... <-85dBu<br>16 channels routed ..... <-88dBu<br>Aux output, input sends @ - $\mu$ , Aux master 0dB<br>32 channels routed ..... <-88dBu<br>16 channels routed ..... <-91dBu |
| Crosstalk @ 1kHz   | Input channel Muting ..... >98dB<br>Input fader cutoff ..... >98dB<br>Input pan pot isolation ..... >82dB<br>Mix routing isolation ..... >98dB<br>Group routing isolation ..... >98dB<br>Adjacent channel isolation ..... >100dB<br>Group-Mix crosstalk ..... <-84dB<br>Aux send off ..... <-94dB  |
| CMRR   | Mono input ..... typically 80dB @ 1kHz<br>measured at max gain   |
| Input & Output<br>Levels   | Input Channel Mic Input ..... +15dBu max<br>Input Channel Line Input ..... +30dBu max<br>Stereo Inputs & Insert Returns ..... +20dBu max<br>All Outputs ..... +20dBu max<br>..... Nominal Operating Level ..... 0dBu<br>Headphone Power ..... 2 x 250mW into 200W phones   |
| Input & Output<br>Impedances                                     | Mic Input ..... 2k $\Omega$<br>Line inputs ..... >10k $\Omega$<br>Input Channel Insert Return ..... 5 k $\Omega$<br>..... (with EQ in, otherwise worst case 1.8 k $\Omega$ )<br>Mix, Group, Aux Outputs ..... 150W<br>Insert Sends ..... 75W<br>Recommended headphone impedance ..... 50-600W<br>Headphone Power ..... 2 x 250mW into 200W phones                                      |
| HP Filter (Mono Input)   | 100Hz, 18dB per octave   |
| EQ (Mono Input)  | HF ..... 12kHz, +/-15dB, 2 <sup>nd</sup> order shelving<br>Hi-Mid ..... 550Hz-13kHz, +/-15dB, Q=1<br>Lo-Mid ..... 80Hz-1.9kHz, +/-15dB, Q=1<br>LF ..... 80Hz, +/-15dB, 2 <sup>nd</sup> order shelving  |
| Metering   | 6 tri-colour 12-segment LED bargraphs.   |
| Power Consumption  | Universal Mains Input 85V-270v AC, 50/60Hz.<br>Power Consumption ..... less than 50W   |
| Weight   | 16 Channel ..... 18.2kg (40lbs)<br>24 Channel ..... 21.8kg (48lbs)<br>32 Channel ..... 25.4kg (56lbs)  |
| Operating Conditions   | Temperature Range ..... -10° to +30°<br>Relative Humidity ..... 0% to 80%  |

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