

ONYX 1220 Specifications

Frequency Response

Mic Input to Main Output (Gain @ Unity)
 +0, -1 dB, 10 Hz to 50 kHz
 +0, -3 dB, <10 Hz to >100 kHz

Distortion (THD & IMD)

Mic Input to Main Output (@ +4 dBu output)
 THD: < 0.01%, 20 Hz to 20 kHz
 SMPTE IMD: < 0.005%

Dynamic Range

>113 dB (Mic In to Main Out)

Noise Floor

(20 Hz to 20 kHz Bandwidth, 150Ω source impedance)

Equivalent Input Noise (E.I.N.)
 -129 dBu @ +60 dB gain

Mic Output Noise:
 Recording Output: -100 dBu (minimum gain)

Residual Output Noise:
 Main Out: -97 dBu (Channel and Main Mix levels off)
 Main Out: -87 dBu (Channel and Main Mix levels at unity)

Common Mode Rejection Ratio (CMRR)

Mic In: >60 dB @ 1 kHz, Gain @ maximum

Crosstalk

Adjacent Inputs or Input to Output: < -75 dB @ 1 kHz
 Adjacent Inputs to Recording Outputs: < -90 dB @ 1 kHz

Input Gain Control Range

Mic In: 0 dB to +60 dB
 Line In: -20 dB to +40 dB, mono channels
 Line In: -20 dB to +20 dB, stereo channels

Phantom Power

+48 VDC

Equalization

Mono Channel EQ:
 High: ±15 dB @ 12 kHz
 Mid: ±15 dB, sweepable from 100 Hz to 8 kHz
 Low: ±15 dB @ 80 Hz

Stereo Channel EQ:
 High: ±15 dB @ 12 kHz
 Mid: ±15 dB @ 2.5 kHz
 Low: ±15 dB @ 80 Hz

Mixer Rated Output

Main: +4 dBu
 Aux Send: +4 dBu
 Control Room: +4 dBu
 Alt 3/4: +4 dBu
 Maximum Rated Output:
 +27 dBu @ Main XLR Outputs
 +21 dBu @ TRS Outputs

Maximum Input Levels

Mic Input: +21 dBu, Gain @ Unity
 Inst Input: +21 dBu, Gain @ -20 dB
 Mono Channel Line Input:
 +30 dBu, Gain @ Unity
 Stereo Channel Line Input:
 +21 dBu, Gain @ -20 dB
 Tape Input: +15 dBu
 Aux Return: +21 dBu

Maximum Voltage Gain

Mic Input to:
 Main Output (XLR): 85 dB
 Main Output (TRS): 79 dB
 Tape Output: 79 dB
 Aux Sends: 85 dB
 Control Rm Output: 89 dB
 Alt 3/4 Output: 64 dB
 Phones Output: 87 dB

Inst Input to:
 Main Output (XLR): 66 dB
 Main Output (TRS): 60 dB
 Tape Output: 60 dB
 Aux Sends: 66 dB
 Control Rm Output: 70 dB
 Alt 3/4 Output: 45 dB
 Phones Output: 68 dB

Stereo Line Input to:
 Main Output (XLR): 46 dB
 Main Output (TRS): 40 dB
 Tape Output: 40 dB
 Aux Sends: 45 dB
 Control Rm Output: 49 dB
 Alt 3/4 Output: 24 dB
 Phones Output: 47 dB

Tape Input to:
 Main Output (XLR): 31 dB
 Main Output (TRS): 25 dB
 Tape Output: 25 dB
 Control Rm Output: 16 dB
 Phones Output: 14 dB

Aux Return to:
 Main Output (XLR): 26 dB
 Main Output (TRS): 20 dB
 Tape Output: 20 dB
 Aux Send: 26 dB
 Control Rm Output: 29 dB
 Phones Output: 27 dB

Input Impedance

Mic Input: 2.4 kΩ, balanced
 Inst Input: 1 MΩ
 Mono Channel Line Input: 30 kΩ balanced;
 15 kΩ unbalanced
 Stereo Channel Line Input: 20 kΩ balanced;
 10 kΩ unbalanced
 Stereo Aux Returns: 20 kΩ balanced;
 10 kΩ unbalanced
 Tape In: 20 kΩ unbalanced

MIXER SPECIFICATIONS: CHAPTER 9: ONYX 1220

Output Impedance

Main:	100 Ω balanced, XLR outputs; 300 Ω TRS outputs
Recording Outputs:	300 Ω
Control Room:	300 Ω
Alt 3/4:	300 Ω
Aux Sends:	300 Ω
Tape Output:	2.0 k Ω
Phones Output:	25 Ω

Channel Level Set LED (Sensitivity)

0 dBu (normal operating level)

VU Meters

Main Left and Right, 12 segments:
Clip (+20), +10, +7, +4, +2, 0, -2, -4, -7, -10, -20, -30
0 LED = 0 dBu

AC Power Requirements

Power Consumption: 40 watts

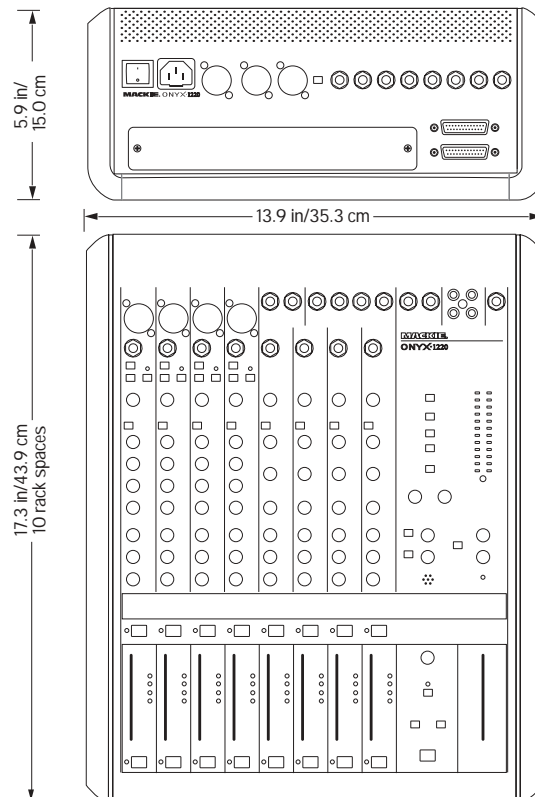
Universal AC Power Supply:
100 VAC – 240 VAC, 50-60 Hz

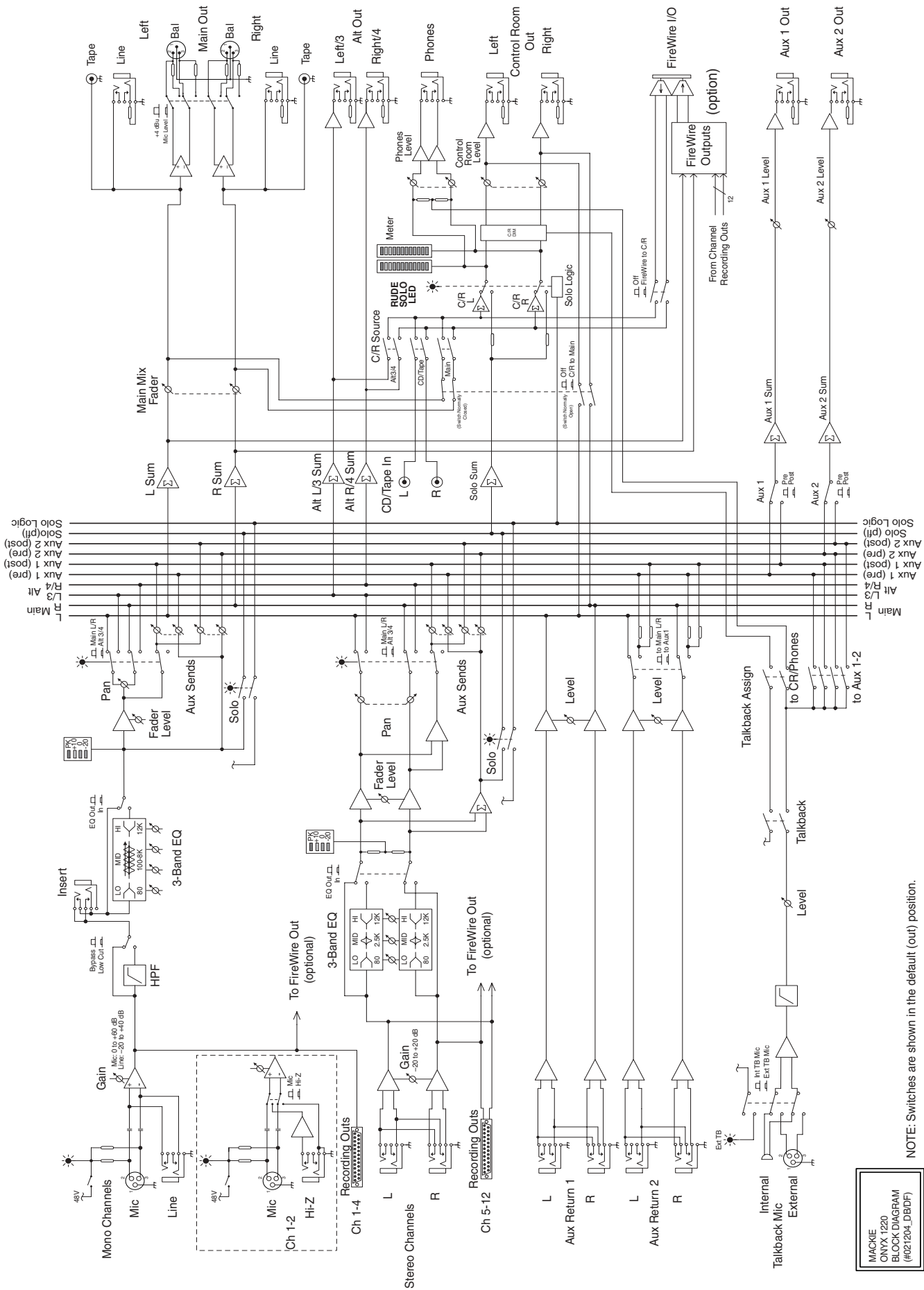
Physical Dimensions and Weight

Height:	17.3 in/439 mm
Width:	13.9 in/353 mm
Depth:	5.9 in/150 mm
Weight:	16.0 lb/7.3 kg

Options

Onyx FireWire Interface Card
Rack Mount Kit





NOTE: Switches are shown in the default (out) position.

MACKIE
ONYX 1220
BLOCK DIAGRAM
(#021204,DBDF)

