

TECHNICAL SPECIFICATIONS - STUDIO KONNEKT 48

Digital Inputs and Outputs

Connector (S/PDIF): RCA Phono, 75 Ohm
Formats (S/PDIF and TosLink): S/PDIF (24 bit), IEC 958, Pro-status bits
Connector (ADAT® or TosLink): Optical Pipe
Format (ADAT®): 8-ch. @ 48 kHz, 8-ch. SMUX @ 96 kHz
Connector (Word Clock IO): BNC, 75 Ohm, 1 x Fs, 2.5 Vpp terminated, rising edge reference

FireWire (format): IEEE 1394a, S400, IEC 61883
FireWire (channels): 30 to and 28 from the DAW
Digital IO Engine: TC DICE II, handling all IO formats

Clock and Jitter

Internal Sample Rates: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz
Internal Clock Precision: +/- 30 PPM
External Sample Rates: 43 to 193 kHz, jitter rejection at all rates
Jitter Rejection Engine: JET™ technology in TC DICE II
Jitter Rejection Filter: < -3 dB @ 10 Hz, < -100 dB @ 600 Hz
DIO Interface Jitter: < 1 ns peak, BW: 700 Hz to 100 kHz
AD/DA Conversion Jitter: < 42 ps RMS, BW: 100 Hz to 40 kHz
Digital Output Phase: < 0.5% of Sample Period
(stand alone and across network): +50% to -50% of Sample Period
Input Slip Sample Tolerance (all DIs): 0.09/0.19/0.38 ms
Processing Delay DIO @ 192/96/48 kHz: DC to 23.9 kHz 0.01 dB @ 48 kHz
Frequency Response DIO:

Line Inputs Ch. 5 – 12

Connectors: 1/4" TRS Jack (Balanced)
Impedance, Bal/Unbal: 20 kOhm/25 kOhm
Max Input Level (incl. PAD): +13 dBu or +25 dBu
THD: < -90 dB (0.003%) @ 1 kHz, -1 dBFS
Dynamic Range: < -101 dB(A), 20 Hz to 20 kHz
Freq. Response: +0/-0.5 dB, 20 Hz to 20 kHz
Crosstalk: < -95 dB, 20 Hz to 20 kHz

ADC

A to D Conversion: 24 bit, 128 x Oversampling Bitstream
A to D Delay @ 192/96/48 kHz: 0.15/0.3/0.61 ms

Mic. Inputs Ch. 1,2,3,4

Connectors: Neutrik Combo (XLR)
Sensitivity Full Range Pad on/off: -10/+10 dBu @ -52/ -32 dBu
Total Preamp gain: 62 dB
Impedance, Pad on/off: 2000/1300 ohm
NF @ Rg = 150 ohm, Max. Gain: < 3 dB
EIN @ Rg = 150 ohm, Max. Gain: < -128 dBu
THD, Min. Gain: < -95 dB (0.002%) @ 1 kHz, -1 dBFS
Dynamic Range, Min. Gain: < -106 dB(A), 20 Hz to 20 kHz
Crosstalk: < -75 dB, 20 Hz to 20 kHz

Inst. Inputs Ch. 1,2,3,4

Connectors: Neutrik Combo (1/4" TRS Jack)
Sensitivity Range: -25 dBu @ +17 dBu
Total Preamp gain: 42 dB
Impedance: 1 Mohm
THD, Min. Gain: < -93 dB (0.002%) @ 1 kHz, -1 dBFS
Dynamic Range, Min. Gain: < -105 dB(A), 20 Hz to 20 kHz
Crosstalk: < -90 dB, 20 Hz to 20 kHz

Line Outputs Ch. 5 – 12

Connectors: 1/4" TRS Jack. Balanced/unbalanced.
Impedance: 100 Ohm

Max Output Level: +13 dBu
THD: < -95 dB (0.002%) @ 1 kHz, -1 dBFS
Dynamic Range: < -103 dB(A), 20 Hz to 20 kHz
Freq. Response: +0/-0.3 dB, 20 Hz to 20 kHz < -90 dB, 20 Hz to 20 kHz
Crosstalk:

Main Output 1,2

Connectors: XLR. Balanced.
Impedance: 100 Ohm
Max Output Level: +13 dBu (analog gain scale)
THD: < -93 dB (0.002%) @ 1 kHz, -1 dBFS
Dynamic Range: < -103 dB(A), 20 Hz to 20 kHz
Freq. Response: +0/-0.1 dB, 20 Hz to 20 kHz
Crosstalk: < -99 dB, 20 Hz to 20 kHz

DAC

D to A Conversion: 24 bit, 128 x Oversampling Bitstream
D to A Delay @ 192/96/48 kHz: 0.1/0.2/0.4 ms

Headphones Output (Ch. 3/4, 11/12)

Connectors: 2 x 1/4" TRS Jack (Stereo)
Impedance: 80 Ohm
Max Output Level: +18 dBu (analog gain scale)
THD: < -90 dB (0.003%) @ 1 kHz, -1 dBFS
Dynamic Range: < -101 dB(A), 20 Hz to 20 kHz
Freq. Response: +0/-0.2 dB, 20 Hz to 20 kHz
Crosstalk: < -90 dB, 20 Hz to 20 kHz

Power @ 40 Ohm Load: 200 mW
Power @ 600 Ohm Load: 93 mW

EMC

Complies With: EN 55103-1 and EN 55103-2, FCC part 15, Class B, CISPR 22, Class B

Safety

Certified To: IEC 60065, EN 60065, UL6500 and CSA E60065 CSA FILE #LR108093

Environment

Operating Temperature: 32° F to 122° F (0° C to 50° C)
Storage Temperature: -22° F to 167° F (-30° C to 70° C)
Humidity: Max. 90% non-condensing

Control Interface

MIDI: In/Out: 5 Pin DIN
FireWire (DAW): IEEE 1394a, IEC 61883

General

Dimensions: 19" x 1.75" x 7.3" (483 x 44 x 185 mm)
Weight: 5.5 lb. (2.5 kg)
Finish: Anodized aluminum front panel. Plated and coated steel back/top plate.
PPM Meter (Ch. 1 – 4): 6 LEDs pr. mono channel.
Stereo PPM (Ch. 5 – 12): 6 LEDs pr. stereo channel.
Mains Power Supply: 90 to 240 VAC, 50 to 60 Hz (Auto Select)
FireWire Bus Powered: No

Power Consumption: <25 W

Warranty Parts and labor: 1 Year