ADI-2/4 Pro SE

2-AD/4-DA 768 kHz, High-Performance Converter

Analog Inputs

XLR/TRS

- Input: XLR and 6.3 mm TRS jack, servo-balanced
- Input impedance @ 1 kHz, balanced: 90 kOhm, unbalanced: 45 kOhm
- Input sensitivity switchable +24 dBu, +19 dBu, +13 dBu, +7 dBu, +1 dBu @ 0 dBFS
- Digital Trim Gain range: 0 dB up to +6 dB, in steps of 0.5 dB
- Signal to Noise ratio (SNR) @ +13/19/24 dBu: >120 dB (AES17), >123 dBA
- Signal to Noise ratio (SNR) @ +7/+1 dBu: >120 dB (AES17), 123 dBA
- Frequency response* @ 44.1 kHz, -0.1 dB: 0.4 Hz – 20.4 kHz
- Frequency response* @ 96 kHz, -0.5 dB: 0.2 Hz – 45.5 kHz
- Frequency response* @ 192 kHz, -1 dB: 0.15 Hz – 90.9 kHz
- Frequency response* @ 384 kHz, -1 dB: 0.15 Hz – 182 kHz
- Frequency response* @ 768 kHz, -1 dB: 0.15 Hz – 348 kHz
- THD @ -0.5 dBFS: > -130 dB, 0.0000316 %
- THD+N @ -0.5 dBFS: -119 dB, 0.000112 %
- Channel separation: > 130 dB @ 1 kHz

* DC Filter None. With Filter RME @ -1 dB: < 0,5 Hz

RIAA Mode via TS

- RIAA deviation 20 Hz – 20 kHz: < ±0.05 dB
- Input impedance: 45 kOhm @ 1 kHz, input capacitance 150 pF
- Sensitivity: +14 dB: 20 mV, +20 dB: 10 mV, +26 dB: 5 mV
- Sensitivity: +32 dB 2.5 mV, +38 dB: 1.25 mV
- Additional 0 to +6 dB Gain in steps of 0.5 dB via Trim Gain
- Maximum input level @ +14 dB: 114 mV, -16.6 dBu
- Maximum input level @ +20 dB: 57 mV, -22.6 dBu
- Maximum input level @ +26 dB: 28.4 mV, -28.7 dBu
- Maximum input level @ +32 dB: 14.3 mV, -34.7 dBu
- Maximum input level @ +38 dB: 7.2 mV, -40.6 dBu
- Digital headroom in all Gains, related to sensitivity: 15 dB
- Signal to Noise Ratio (SNR), 20 Hz-20 kHz, +14/20 dB Gain: 88 dB, 92 dBA
- Signal to Noise Ratio (SNR), 20 Hz-20 kHz, +26 dB Gain: 80.5 dB, 85 dBA
- Signal to Noise Ratio (SNR), 20 Hz-20 kHz, +32 dB Gain: 74 dB, 78.5 dBA
- Signal to Noise Ratio (SNR), 20 Hz-20 kHz, +38 dB Gain: 68 dB, 73 dBA
- THD+N, 20 Hz-20 kHz, +14/+20 dB: -88 dB, 0.004 %
- THD+N, 20 Hz-20 kHz, +26 dB: -81.5 dB, 0.0084 %
- THD+N, 20 Hz-20 kHz, +32 dB: -74 dB, 0.019 %
- THD+N, 20 Hz-20 kHz, +38 dB: -69 dB, 0.035 %

Analog Outputs

1/2 XLR

- Maximum Output Level: +26.5 dBu @ 0 dBFS
- Output level switchable +24 dBu, +19 dBu, +13 dBu, +7 dBu, +1 dBu @ 0 dBFS
- Signal to Noise ratio (SNR) @ +7/+13/19/24 dBu: 120 dB (AES17), 123 dBA
- Signal to Noise ratio (SNR) @ +1 dBu: 119 dB (AES17), 120 dBA
- Frequency response @ 44.1 kHz, -0.1 dB: 0 Hz – 21 kHz
- Frequency response @ 96 kHz, -0.5 dB: 0 Hz – 44.9 kHz
- Frequency response @ 192 kHz, -1 dB: 0 Hz – 90 kHz
- Frequency response @ 384 kHz, -1 dB: 0 Hz – 181 kHz
- Frequency response @ 768 kHz, -3 dB: 0 Hz – 285 kHz
- THD @ 0 dBFS: < -120 dB, 0.0001 %
- THD+N @ 0 dBFS: -116 dB, 0.00016 %
- Channel separation: > 130 dB
- Output impedance @ 1 kHz @ +24/+19/+13 dBu: 213 Ohm
- Output impedance @ 1 kHz @ +7/+1 dBu: 113 Ohm

1/2 TS (rear)

As output XLR, but:

- Output: 6.3 mm TRS jack, impedance-balanced
- Maximum output level: +21.5 dBu @ 0 dBFS
- Signal to Noise ratio (SNR) @ +19/13 dBu: 120 dB (AES17), 123 dBA
- Signal to Noise ratio (SNR) @ +7 dBu: 119 dB (AES17), 121 dBA
- Signal to Noise ratio (SNR) @ +1 dBu: 118 dB (AES17), 118 dBA
- Output impedance @ 1 kHz: balanced 213 Ohm, unbalanced 106 Ohm

Phones 1/2, Phones 3/4

As Output 1/2 TRS, but:

- Output: 6.3 mm TRS stereo jack, unbalanced
- Maximum output level: +21.5 dBu @ 0 dBFS
- Output impedance: 0.1 Ohm
- Signal to Noise ratio (SNR) @ +19 dBu (Hi-Power): 120 dB (AES17), 122 dBA
- Signal to Noise ratio (SNR) @ +7 dBu (Lo-Power): 119 dB (AES17), 121 dBA
- Signal to Noise ratio (SNR) @ +1 dBu (IEM): 118 dB (AES17), 120 dBA
- Output level at 0 dBFS, Ref Level +19 dBu, load 100 Ohm or up: +21.5 dBu (9.2 V)
- Minimum load impedance IEM @ +1 dBu: 4 Ohm
- Minimum load impedance Lo-Power @ +7 dBu: 8 Ohm
- Minimum load impedance Hi-Power @ +19 dBu: 24 Ohm
- THD @ +20 dBu, 32 Ohm load (1.9 Watts): -124 dB, 0.000057 %
- THD+N @ + 20 dBu, 32 Ohm load (1.9 Watts): -118 dB, 0.00011 %
- Max power @ 0.001% THD: 2.1 W per channel
- Channel separation 20 Hz – 20 kHz: 80 dB @ 32 Ohm

Balanced Phones mode

As before, but:

- Maximum output level: +27.5 dBu (18.4 V) @ 0 dBFS
- Output levels switchable: IEM +7 dBu, Lo-Power +13 dBu, Hi-Power +25 dBu
- Output levels switchable: IEM 1.73 V, Lo-Power 3.46 V, Hi-Power 13.8 V
- Output impedance: 0.2 Ohm • Signal to Noise ratio (SNR) @ +25 dBu: 120 dB (AES17), 122 dBA
- Signal to Noise ratio (SNR) @ +13 / +7 dBu: 119 dB (AES17), 121 dBA
- Minimum load impedance IEM @ +7 dBu: 8 Ohm
- Minimum load impedance Lo-Power @ +13 dBu: 12 Ohm
- Minimum load impedance i Hi-Power @ +25 dBu: 40 Ohm
- Max power @ 0.001% THD: 4 W per channel • Channel separation: > 130 dB @ 1 kHz

Digital Inputs

General

- Lock Range: 28 kHz – 200 kHz
- Jitter suppression: > 50 dB (> 1 Hz)
- Accepts Consumer and Professional format

AES/EBU

- 1 x XLR, transformer-balanced, galvanically isolated, according to AES3-1992
- Input sensitivity 1.0 Vpp

SPDIF coaxial

- 1 x RCA, transformer-balanced, according to IEC 60958
- High-sensitivity input stage (< 0.3 Vpp)
- AES/EBU compatible (AES3-1992)

SPDIF optical

- 1 x optical, according to IEC 60958
- ADAT compatible

Digital Outputs

AES/EBU

- 1 x XLR, transformer-balanced, galvanically isolated, according to AES3-1992
- Output level 2.7 Vpp
- Format Professional according to AES3-1992 Amendment 4
- Single Wire mode, sample rate 28 kHz up to 200 kHz

SPDIF coaxial

- 1 x RCA, according to IEC 60958
- Output level 0.75 Vpp
- Format Consumer SPDIF according to IEC 60958
- Single Wire mode, sample rate 28 kHz up to 200 kHz

SPDIF optical

- 1 x optical, according to IEC 60958
- Format Consumer (SPDIF) according to IEC 60958
- Sample rate 28 kHz up to 200 kHz

Digital

- Clocks: Internal, AES In, SPDIF In, ADAT In

- Jitter suppression of external clocks: > 50 dB (> 1 Hz)
- Effective clock jitter influence on AD and DA conversion: near zero
- PLL ensures zero dropout, even at more than 100 ns jitter
- Additional Digital Bitclock PLL for trouble-free varispeed ADAT operation
- Supported sample rates for external clocks: 32 kHz up to 200
- Internally supported sample rates: 44.1 kHz up to 768 kHz

General

- Included power supply: external switching PSU, 100 - 240 V AC, 3.3 A, 40 Watts
- Standby power consumption DC 12 V: 170 mW
- Standby power consumption AC 230 V: 280 mW
- Idle power consumption: 14 Watts, Max. power consumption: 30 Watts
- Idle current at 12 V: 1.16 A
- Dimensions (WxHxD): 215 x 44 x 160 mm (8.5" x 1.73" x 6.3")
- Weight: 1.2 kg (2.2 lbs)
- Temperature range: +5° up to +40° Celsius (41° F up to 112°F)
- Relative humidity: < 75%, non-condensing