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Nominal level,

가 ¹⁾ , 가 가
.
.
²⁾ 가 ^{+4dBu} ,
.
.
가 ^{+4dBu} , (Reference)
.
가 (A/D, D/A ,
)
^{+4dBu = -18dBFS} .
-8dBu , -8dBu(RMS) 가 ,
^{+4dBu} 가 ³⁾ ,
-8dBu = -18dBFS .

Line I/O

^{+4dBu,} ^{-10dBV} .
.
26dBu , 가
22dB .
10dBu ,
6dBu .
^{+4dBu} ,
가 ^{+4dBu} ,
가 .



+ 26dBu Neve

+ 4dBu

VU

0VU

4)

20dB

+4dBu
가

SMPTE

$$+4\text{dBu} = -20\text{dBFS}$$
$$24\text{dBu}$$

EBU

+4dBu=-18dBFS

22dBu

18dB

가

-10dBu

+4dBu 가
EBU
8dBu 가

-10dBu=-18dBFS

5)

가, ()

Trim

Gain 가 Gain 가 Trim

Trim

=

+4dBu SMPTE EBU 22dBu Reference() 가

24dBu 가 A/D , D/A 가

Tascam Celesonic 20X20

20 × 20



The image shows a Tascam US-20x20 audio interface. It is a black, rack-mountable unit with a silver front panel. On the left, there is a USB port and a 'STANDBY/ON' switch. The front panel features several input and output ports, including XLR and 1/4" jacks, labeled IN1 through IN8. There are also control knobs and switches for various functions like 'MODE', 'MIC PRE', 'AUDIO I/F', and 'MIXER'. The unit is shown from a slightly elevated angle, reflecting on the surface below it.

8dBu , -12dBu

MIC IN (BALANCED)	IN 1-8
Connector	XLR-3-31 (1: GND, 2: HOT, 3: COLD)
Input impedance	2.4kΩ
Nominal input level	
GAIN: MAX	-68dBu (0.0003Vrms)
GAIN: MIN	-12dBu (0.195Vrms)
Maximum input level	+8dBu (1.947Vrms)
Gain	56dB

-20dBFS

+8dBu=0dBFS

⁶⁾ -12dBu

가

-12dBu

-20dBFS

가 20dB

SMPTE

가

LINE OUT (BALANCED)	OUT 1-10	OUT 1-8
Connector	1/4" (6.3mm) TRS-jack (T: HOT, R: COLD, S: GND)	
Output impedance	100Ω	
Nominal output level	+4dBu (1.228Vrms)	
Maximum output level	+24dBu (12.277Vrms)	

+4dBu

24dBu

+4dBu

가

+4dBu

-20dBFS

+4dBu

가

LINE OUT (BALANCED)	OUT 1-10	OUT 1-8
Connector	1/4" (6.3mm) TRS-jack (T: HOT, R: COLD, S: GND)	
Output impedance	100Ω	
Nominal output level	+4dBu (1.228Vrms)	
Maximum output level	+24dBu (12.277Vrms)	

+4dBu

24dBu

-20dBFS

가

+4dBu

가

20 × 20

Tascam Model 16

Model 16



-8dBu=-18dBFS, +10dBu=0dBFS, -8dBu, 18dBu 가

MIC IN	CH1 to 8, 9/10, 11/12
Connector	XLR 3-31 (1: GND, 2: HOT, 3: COLD, Balanced)
Maximum Input Level	+10dBu
Nominal Input Level	-8dBu
Minimum Input Level	-58dBu
Gain Adjustable Range	0 to 50dB
Input Impedance	1.8k ohm
Phantom Power supply	+48V

22dBu, 4dBu ,

LINE IN	CH1 to 8, 9/10, 11/12
Connector	1/4" (6.3mm) TRS Phone jack (T: HOT, R: COLD, S: GND, Balanced)
Maximum Input Level	+22dBu
Nominal Input Level	+4dBu
Gain Adjustable Range	-10 to +40 dB: CH 1 to 8, +20 to +30 dB: CH 9/10 and 11/12
Input Impedance	22k ohm

22dBu, 4dBu ,

MAIN OUTPUT	
Connector	XLR 3-32 (1: GND, 2: HOT, 3: COLD, Balanced)
Maximum Output Level	+22dBu
Nominal Output Level	+4dBu
Output Impedance	100 ohm

RME Fireface UFX II

19. Analog Inputs

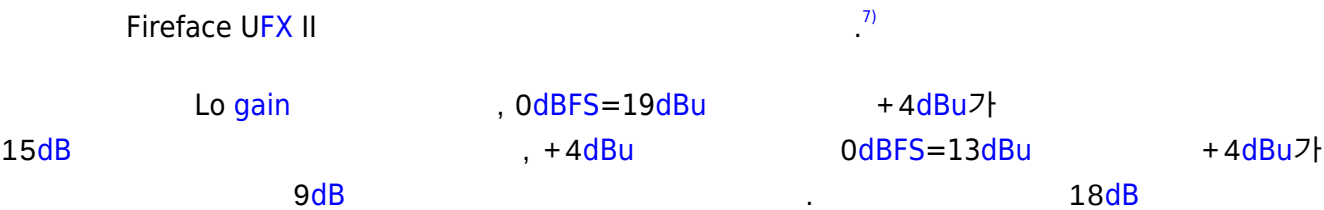
19.1 Line Rear

The Fireface has eight balanced Line inputs as 1/4" TRS jacks on the back of the unit. The electronic input stage is built in a servo balanced design which handles unbalanced (mono jacks) and balanced (stereo jacks) correctly, automatically adjusting the level reference.

! *When using unbalanced cables with TRS jacks: be sure to connect the 'ring' contact of the TRS jack to ground. Otherwise noise may occur, caused by the unconnected negative input of the balanced input.*

One of the main issues when working with an AD-converter is to maintain the full dynamic range within the best operating level. Therefore the Fireface UFX II internally uses hi-quality electronic switches, which allow for a perfect adaptation of all rear inputs individually to the most often used studio levels. The Fireface UFX II offers the following level references:

Reference	0 dBFS @	Headroom
Lo Gain	+19 dBu	15 dB
+4 dBu	+13 dBu	9 dB



RME ADI-8QS

SPECS

ADI-8 QS

> Input AD: 1/4" TRS jack and 25 pin D-sub, servo balanced, completely symmetrical audio path

> Output AD: 4 x AES/EBU, 2 x ADAT optical, optional MADI

> Input DA: 4 x AES/EBU, 2 x ADAT optical, optional MADI

> Output DA:1/4" TRS jack servo balanced, up to +21 dBu. 25 pin D-sub, balanced, up to +24 dBu. DC-coupled audio path

> Dynamic Range AD: 117 dBA

> THD AD: < -110 dB (< 0.00032 %)

> THD+N AD: < -104 dB (< 0.00063 %)

> Crosstalk AD: > 130 dB

> Dynamic Range DA: 120 dBA unmuted

> THD DA: < -104 dB (< 0.00063 %)

> THD+N DA: < -102 dB (< 0.0008 %)

> Crosstalk DA: > 110 dB

> Input level for 0 dBFS: +24 dBu, +19 dBu, +13 dBu, +4.2 dBu, each adjustable by 6 dB in steps of 0.5 dB via Digital Input Trim

> Output level for 0 dBFS: +24 dBu, +19 dBu, +13 dBu, +4.2 dBu, each adjustable by +/- 6 dB in steps of 0.5 dB

RME

ADI-8QS

24dBu

가

,

가

.

가

RME

가

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Roland Studio Capture

Roland STUDIO-CAPTURE (UA-1610): USB 2.0 Audio Interface

Number of Audio Record/ Playback Channels	Sampling Rate: 192 kHz, 96 kHz, 48 kHz, 44.1 kHz Record: 16 channels Playback: 10 channels
Signal Processing	PC interface: 24 bits AD/DA Conversion: 24 bits
Sampling Rate	AD/DA Conversion: 192 kHz, 96 kHz, 48 kHz, 44.1 kHz DIGITAL (IN/OUT): 96 kHz, 48 kHz, 44.1 kHz
Nominal Input Level (variable)	Input 1–12 jacks (XLR type): -60– -2 dBu Input 1–12 jacks (1/4-inch TRS phone type): -54–+4 dBu Input 13–16 jacks (1/4-inch TRS phone type): -20, -10, +4 dBu
Nominal Output Level	OUTPUT 1–8 jacks: +4 dBu (balanced)
Headroom	18 dB

Roland

Input

+4dBu⁸⁾

.

+4dBu=-18dBFS

,

= 22dBu

.

⁹⁾

가

,

+4dBu

,

+4dBu=-18dBFS,

= 22dBu

Roland Octa Capture

OCTA-CAPTURE : 10 × 10 Audio Interface

Number of Audio Record/ Playback Channels	Sampling Frequency = 44.1 kHz, 48 kHz, 96 kHz Record: 12 channels Playback: 10 channels
	Sampling Frequency = 192 kHz Record: 4 channels Playback: 4 channels
Signal Processing	PC interface: 24 bits
	AD/DA Conversion: 24 bits
	Internal: 40 bits
Sampling Frequency	AD/DA Conversion: 44.1 kHz, 48 kHz, 96 kHz, 192 kHz
	DIGITAL (IN/OUT): 44.1 kHz, 48 kHz, 96 kHz
Nominal Input Level	Combo input jacks 1–6 (XLR type): -56 to -6 dBu
	Combo input jacks 7–8 (XLR type): -50 to +0 dBu
	Combo input jacks 1–8 (1/4 inch TRS phone type): -46 to +4 dBu
Nominal Output Level	OUTPUT 1–8: +0 dBu (balanced)
Head Room	16 dB

0dBu¹⁰⁾가 , 0dBu=-18dBFS , = 18dBu ¹¹⁾ .

, 0dBu가 , 0dBu=-18dBFS, = 18dBu .

¹²⁾ .

LA-2A

Specifications

- ❑ Gain Reduction: up to 40 dB
- ❑ Distortion: less than 0.35% total harmonics at +10 dBm, and less than 0.75% total harmonics at +16 dBm output
- ❑ Response: +/- 0.1 dB, 30 cycles to 15 kilocycles
- ❑ Noise: 75 dB below +10 dBm output level
- ❑ Gain: 40 +/- 1dB
- ❑ Output Level: +10dBm nominal, +16dBm peaks
- ❑ Input Level: +16 dBm maximum
- ❑ Very fast attack time
- ❑ Release Time: approximately 0.06 seconds for 50% release, 0.5 to 5 seconds for complete release depending upon the amount of previous reduction
- ❑ Input Impedance: 600 ohms balanced
- ❑ Output Impedance: 600 ohms balanced
- ❑ Panel Size: 19" x 5 ¼ "
- ❑ Depth Behind Panel: 7 ¼ "
- ❑ Panel Controls: Gain (Output level), Peak Reduction, and Meter Selector Switch
- ❑ Meter: dB Gain Reduction and dB Output
- ❑ Tube Complement: (2) 12AX7A, (1) 12BH7A, (1) 6AQ5

LA-2A

600Ω

dBm

10dBu

dBu

, 16dBu Max

16dBu,

XLR

TRS

13)



14)

?

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가

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가

- Facebook
- Twitter
- Email

1)

2)

EBU, SMPTE

3)

ex.

4)

EBU:-18dBFS, SMPTE:-20dBFS

5)

가

가

/

6)

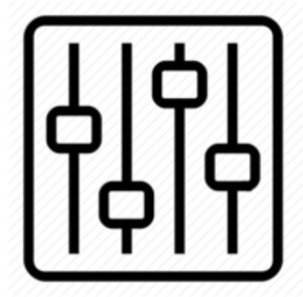
7)

가

8)

XLR -2dBu

- 9)
XLR() -2dBu , -2dBu=-18dBFS ,
= 16dBu . .
- 10)
XLR -6dBu
- 11)
XLR -6dBu , -6dBu=-18dBFS , =
12dBu . .
- 12)
- 13)
- 14)



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: (admin@homerecz.com)