



US-428 TECHNICAL SPECIFICATIONS

General

Frequency Response

20 Hz - 20KHz, /0.5 dB / -0.3 dB
 LINE A/B to LINE OUT
 LINE TRIM max, -28dBu input
 LINE OUT Level -10dB position

Noise Level

Better than -82dBu Din Audio
 Better than -88dBu A Weight
 MIC A/B to LINE OUT
 LINE TRIM min, 150 ohm terminated
 LINE OUT Level -10dB position

Signal Processing Delay

Less than 2 ms
 MIC/LINE to LINE OUT Cue Monitor
 Fs = 44.1KHz

THD

Within 0.07%
 MIC A/B to LINE OUT
LINE TRIM max, -28dBu input
LINE OUT Level -10dB position
Crosstalk: Better than -80 dB at 1KHz
LINE TRIM max, -28dBu input
LINE OUT Level -10dB position
Click: Less than -35 dBu
Fader Attenuation: Better than -90 dB at 1 KHz
Mute Level: Better than -90 dB at 1 KHz
Dimensions:
 14" x 11.5" x 3.25" (35.5 x 29.5 x 8 cm)
Weight: 2.05 Kg (4.5 lbs)

Power Consumption

Version	Voltage	Hz	Power Consumption
DM	100	50/60	7.5 (50Hz)
T/C	120	60	7.5 (60Hz)
EUR	230	50	7.5 (50Hz)
UK	240	50	7.5 (50Hz)
AUS	240	50	7.5 (50Hz)

Input / Output Connectors

MIC INPUT A/B (Analog)

Connector: XLR-3-31
 (1:= GND, 2:= Hot, 3:= Cold) : Balanced
Input Impedance: 2200 ohm
Nominal Input Level (Trim max.): -63 dBu
Nominal Input Level (TRIM min.): -16 dBu
Maximum Input Level: 0 dBu (TRIM min)

LINE INPUT A/B (Analog)

Connector: 1/4" TRS
 (Tip:Hot; Ring:Cold, Sleeve:GND)
Input Impedance: 22kOhm
Nominal Input Level (Trim max.) -43 dBu
Nominal Input Level (TRIM min.): +4 dBu
Maximum Input level: +20 dBu (TRIM min)

LINE INPUT C/D (Analog)

Connector: 1/4"
 (Tip:Hot; Ring:GND; Sleeve:GND) Unbalanced
Input Impedance 47Kohm at MIC/LINE
 680Kohm at GUITAR
Nominal Input Level (Trim max.): -46 dBu
Nominal Input Level (TRIM min.): -10 dBV (-7.8 dBu)

Maximum Input Level: +6 dBV (+8.2 dBu)
 (TRIM min)

LINE OUTPUT (Analog)

Connector: RCA pin jack, Unbalanced
Output Impedance: 100ohm
Nominal Output Level: -10 dBV (-7.8 dBu)
 (LINE LEVEL -10dB)
Maximum Output Level: +16 dBV (+18.2 dBu)
 (LINE LEVEL max)

PHONES OUTPUT (Analog)

Connector: 1/4" TRS Stereo
 (Tip:L, Ring:R, Sleeve:GND)
 (when nominal impedance 40 Ohms loaded)

DIGITAL IN

Connector: RCA pin jack
Format: IEC958 TYPE2
Input impedance: 75ohm
Input Level: 0.5Vp-p

DIGITAL OUT

Connector: RCA pin jack

Format: IEC958 Type 2

Output Impedance: 75 ohm

Output Level: 0.5Vp-p

MIDI IN 1,2

Connector: 5P DIN

Format: Standard MIDI Format

MIDI Out 1,2

Connector: 5P DIN

Format: Standard MIDI Format

USB

Connector: USB Down stream connector

Format: USB

ADC / DAC

A/D Converter

24Bit, 64 times oversampling

Delay: 30 samples

D/A Converter

24Bit, 128 times oversampling

Delay: 30 samples

Audio Performance

MIC Input (A,B XLR Analog Input to Digital Output)

Nominal Level (TRIM max.)

-65.2dBu +1dB / -1dB

TRIM max, 1KHz, (-48dBu input)

Nominal Level (TRIM min.)

-16.2dBu +0.5dB / -0.5dB

TRIM min, 1KHz, (9dBu input)

Frequency Response

20 Hz - 20KHz + 0.2dB / - 3dB

TRIM max, -48dBu input

20 Hz - 20KHz + 0.1dB / -2dB

TRIM min, 0dBu input

Noise Level

Within -81dBFs Din Audio

Within -83dBFs A Weight

TRIM max, 150 ohm terminated

Within -95dBFs Din Audio

Within -98dBFs A Weight

TRIM min, 150 ohm

T.H.D.

Typical 0.04% at 1KHz

TRIM max, -48dBu :

Better than 0.005% Typical 0.003% at 1KHz

TRIM min, 0dBu

LINE Input (A,B 1/4" Analog Input to Digital Output)

Nominal Level (TRIM max.)

-45.7dBu, +1dB / -1dB

TRIM max, 1KHz, (-28dBu input)

Nominal Level (TRIM min.)

-16.2dBu, +0.5dB / -0.5dB

TRIM min, 1KHz, (9dBu input)

Frequency Response

20 Hz - 20KHz, + 0.2dB / - 3dB

TRIM max, -28dBu input

20 Hz - 20KHz, + 0.1dB / -2dB

TRIM min, 0dBu input

LINE Input (C,D Analog Input to Digital Output)

Nominal Level (TRIM max.)

-46.6dBu, +1.5dB / -1.5dB

TRIM max, 1KHz, (-30dBu input)

Nominal Level (TRIM min.)

7.09dBu, +0.3dB / -0.3dB

TRIM min, 1KHz, (9dBu input)

Frequency Response

20 Hz - 20KHz, + 0.5dB / - 2dB

TRIM max, -30dBu input

20 Hz - 20KHz, + 0.3dB / -0.3dB

TRIM min, 9dBu input

Noise Level

Within -82dBFs Din Audio

Within -83dBFs A Weight

TRIM max, 150 ohm terminated

Within -95dBFs Typical -97dB Din Audio

Within -98dBFs Typical -99dB A Weight

TRIM min, 150 ohm terminated

T.H.D

Better than 0.03% Typical 0.01% at 1KHz

TRIM max, -30dBu :

Better than 0.04% Typical 0.03% at 1KHz

TRIM min, 8dBu

LINE OUT (Digital Input to LINE OUT)

Nominal Output: 6dBV, +1.2dB / -1dB

D IN 0dBFs input, LINE OUT Level -10dB position

Frequency Response:

20 Hz - 20KHz, + 0.2 dB / -0.4 dB

D IN 0dBFs input, LINE OUT Level -10dB position

T.H.D.: Better than 0.003% Typical 0.0025% at 1KHz

D IN 0dBFs input, LINE OUT Level -10dB position

Noise Level:

Within -95dBV Din Audio

Within -99dBV A Weight

D IN 0dBFs input, LINE OUT Level -10dB position

PHONES Output

Maximum Output: More than 28mW + 28mW

Typical 32mW + 32mW

Within 1% distortion, at 1KHz, 40 ohm loaded

T.H.D.: Within 1 %

1KHz, Output 25mW + 25mW, 40 ohm loaded

Frequency Response:

100 Hz - 20KHz, + 0.5dB / - 0.5 dB

Nominal level, 40 ohm loaded

20 Hz - 100 Hz, +0.5dB / - 5dB

Nominal level, 40 ohm loaded