

ME2100-System

Technical Specifications

General Characteristics

Operating temperature
Storage temperature
Relative humidity

10 °C to 50 °C
0 °C to 50 °C
10 % to 85 % , non-condensing

Headstage

Dimensions (W x D x H)
Weight with cable
Length of the cable
Input connector type

ME2100-HS32, up to 8 headstages can be connected
50 mm x 72.5 mm x 8 mm
50 g
Optional: 3 m, 5 m or 10 m
Dual-row precision socket, 50 mil (1.27 mm)
grid pattern, for 0.35 to 0.45 mm round pins

Integrated Amplifier

Number of analog recording channels
Ground input
Reference inputs

32
1 additional ground input
Freely selectable reference inputs or
fixed references on channel 8, 16, 24 or 32

Data resolution
Signal input voltage range
Bandwidth
Sampling frequency per channel
Input impedance
Gain

24 bit
 ± 230 mV
DC to 10 kHz, software controlled
up to 50 kHz, software controlled
470 M Ω || 10 pF
10

Intergated Stimulus Generator

Output current
Output current compliance voltage
Output voltage
Voltage output compliance current
Stimulation pattern
Number of stimulation channels

± 1.5 mA
 ± 16 V
 ± 10 V
 ± 20 mA
Almost arbitrary patterns
32 (each channel can be used for stimulation,
2 channels can be used for external stimulation).

Resolution

16 bit

Signal Collector Unit (MCS-SCU)

Dimension (W x D x H)
Weight
4 Inputs for headstages (HS1 to HS 4)
1 Output with 4 analog outputs for LED driver
Voltage output of each analog output
1 64-Channel Analog Out connector
Signal Collector Unit to Interface Board

up to 2 Signal Collector Units can be connected
250 mm x 83 mm x 25 mm
300 g
Lemo connector, EPG.0B.307.HLN
Lemo connector, EPG.0B.304.HLN
0 - 5 V
68-pin MCS standard connector, MCS high grade cable
External power over serial ATA (eSATAp) cable

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MCS-IFB 3.0 Multiboot Interface Board

Dimensions (W x D x H)

250 mm x 83 mm x 25 mm

Weight

300 mg

Front Panel

4 Digital Inputs

Lemo connector, EPL 00250 NTN

4 Digital Outputs

Lemo connector, EPL 00250 NTN

2 Auxiliary channels (not in use)

Lemo connector, EPL 00250 NTN

Rear Panel

1 16 Bit Digital In / Out

68-pin MCS standard connector

1 8-Channel Analog In

10-pin connector (2.54 mm grid), dual row standard IDC

2 Analog Inputs

Lemo connector, EPL 00250 NTN

Signal input range for analog channels

± 1250 mV

Gain for analog channels

2

1 Digital signal processor DSP port

20-pin JTAG connector (1.27 / 2.54 mm grid), dual row

2 USB 3.0 ports

USB 3.0 super speed cable (type A - micro B)

Power supply

MPU 30, PWR DC 0.85 x 2.75 mm

Ground

Common jack 4 mm, banana plug

1 Audio output

Stereo jack 3.5 mm

Side Panel

2 Interface board to headstage connectors

External power over serial ATA (eSATAp)

Power Supply Unit (MPU 30)

Input voltage

90 - 264 VAC @ 47 - 63 Hz

Output voltage

11 - 13 V

Max. power

30 W

Mark of conformity

CE, TÜV, cUL

European standard

EN60601

Software

Operating system

Windows 10, 8.1, and Windows 7 (32 or 64 bit),
English and German version supported

Microsoft Windows ®

Multi Channel Suite software package:

Multi Channel Experimenter

Version 2.6.0 and higher

Multi Channel Analyzer

Version 2.6.0 and higher

Multi Channel DataManager

Version 1.9.7 and higher