

ME2100-System

Technical Specifications

General Characteristics

Operating temperature	10 °C to 50 °C
Storage temperature	0 °C to 50 °C
Relative humidity	10 % to 85 % , non-condensing

Headstages

Length of the cable	up to 8 headstages can be connected Optional: 3 m, 5 m or 10 m
ME2100-HS32 (50 mm x 72.5 mm x 8 mm)	Please see also: ME2100-HS32_Datasheet
ME2100-μPA32 (24 mm x 25 mm x 3 mm)	Please see also: ME2100-μPA32_Datasheet

Integrated Amplifier

Number of analog recording channels	32
Ground input	1 additional ground input
Reference inputs	Freely selectable reference inputs or fixed references on channel 8, 16, 24 or 32
Data resolution	24 bit
Signal input voltage range	± 500 mV (ME2100-HS32); ± 250 mV (ME2100-μPA32)
Bandwidth	DC to 10 kHz, software controlled
Sampling frequency per channel	up to 50 kHz, software controlled
Input impedance	470 MΩ 10 pF (ME2100-HS32); 1 GΩ @ 1 kHz (ME2100-μPA32)

Integated Stimulus Generator: ME2100-HS32 only!

Output current	± 1.5 mA @ ± 16 V compliance voltage
Output voltage	± 10 V @ ± 20 mA max. compliance current
Stimulation pattern	Almost arbitrary patterns
Number of stimulation channels	32 (each channel can be used for stimulation, 2 channels can be used for external stimulation).
Resolution	16 bit

External Stimulation: ME2100-HS32 only!

1 Output connector	6-pin connector (Peci-dip series 853, 1.27 mm grid, 0.44 mm round pin)
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Signal Collector Unit (MCS-SCU)

Dimension (W x D x H)	up to 2 Signal Collector Units can be connected 250 mm x 83 mm x 25 mm
Weight	300 g
4 Inputs for headstages (HS1 to HS 4)	Lemo connector, EPG.0B.307.HLN
1 Connector with 4 analog outputs for LED driver	Lemo connector, EPG.0B.304.HLN
Voltage output of each analog output	0 - 5 V
1 64-Channel Analog Out connector	68-pin MCS standard connector, MCS high grade cable
Signal Collector Unit to Interface Board	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