

MEA2100-Mini-System

Technical Specifications

General Characteristics

Operating temperature	10 °C to 50 °C
Storage temperature	0 °C to 50 °C
Suitable for Incubator	Humidity: 10 % to 95 %, non-condensing

Headstage

Dimensions (W x D x H)	MEA2100-Mini, up to 8 headstages can be connected 186 mm x 80 mm x 12 mm
Weight with cable	485 g
Cable length	3 m
Type of headstage	MEA2100-Mini-HS60 for 60-electrode MEAs MEA2100-Mini-HS120 for 120-electrode MEAs
Power consumption	1.5 W

Integrated Amplifier

Number of analog recording channels	60 or 120
Data resolution	24 bit
Signal input voltage range	± 70 mV
Bandwidth	DC to 10 kHz, software controlled
Sampling frequency per channel	up to 50 kHz, software controlled
Input impedance	450 MΩ 10 pF

Intergated Stimulus Generator

Output current	± 1.5 mA @ ± 16 V compliance voltage
Output voltage	± 10 V @ ± 20 mA max. compliance current
Number of stimulation patterns	2 independent stimulation patterns
Stimulation pattern	Almost arbitrary pattern
Resolution	16 bit
Time resolution	20 µs

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
Signal Collector Unit to Interface Board connector	External power over serial ATA (eSATAp) cable

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MCS-IFB 3.0 Multiboot Interface Board

Dimensions (W x D x H)

Weight

Front Panel

4 Digital Inputs

4 Digital Outputs

2 Auxiliary channels (not in use)

Rear Panel

1 16 Bit Digital In / Out

1 8-Channel Analog In

2 Analog Inputs

Signal input range for analog channels

Gain for analog channels

1 Digital signal processor DSP port (Not in use!)

2 USB 3.0 ports

Power supply

Ground

1 Audio output

Side Panel

2 Interface board to headstage connectors

Power Supply Unit (MPU 30)

Input voltage

Output voltage

Max. power

Mark of conformity

European standard

Software

Operating system

Microsoft Windows ®

Multi Channel Suite software package:

Multi Channel Experimenter

Multi Channel Analyzer

Multi Channel DataManager

250 mm x 83 mm x 25 mm

300 mg

Lemo connector, EPL 00250 NTN

Lemo connector, EPL 00250 NTN

Lemo connector, EPL 00250 NTN

68-Pin MCS standard connector

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

Lemo connector, EPL 00250 NTN

± 2500 mV

2

20-Pin JTAG connector (1.27 / 2.54 mm grid) (Not in use!)

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

MPU 30, PWR DC 0.85 x 2.75 mm

Common jack 4 mm, banana plug

Stereo jack 3.5 mm

External power over serial ATA (eSATAp)

90 - 264 VAC @ 47 - 63 Hz

11 - 13 V

30 W

CE, TÜV, cUL

EN60601

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

Version 2.6.0 and higher

Version 2.6.0 and higher

Version 1.9.7 and higher