CMOS: Complementary Metal Oxide Semiconductor Technology

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

**Headstage**
- Dimensions (W x D x H): 256 mm x 230 mm x 25 mm
- Weight: 1407 g

**Integrated Amplifier**
- Number of recording channels: 4225
- Data resolution: 14 bit
- Bandwidth: DC to 12.5 kHz, software controlled
- Sampling frequency per channel: 25 kHz or lower, software controlled

**Integrated Stimulus Generator**
- Number of stimulation channels: 1024
- Output voltage range: ± 3.4 V, software controlled 0 to 3.4 V (The stimulus amplitude depends on the voltage slope)
- Output voltage resolution: 1 mV
- Time resolution: 10 µs
- Independent stimulation patterns: 3, stimulation sites freely selectable

**Interface Board „IFB-C Multiboost“ and Connectors**
- Dimensions (W x D x H): 250 mm x 83 mm x 25 mm
- Weight: 300 g
- Connectors for IFB-C connection in a chain
  - Lemo connector, EPL 00250 NTN
  - 10-pin connector DIL10Header-100mil
- LEDs for link status 1 and 2
  - Lemo connector, EPL 00250 NTN
- Common jack 4 mm, banana plug
CMOS-MEA5000-System

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Technical Specifications

Rear Panel
- I/O
- Power supply
  1 Ground
  1 16 Bit Digital In / Out
  2 Auxiliary channels
  1 Audio output
  1 Digital signal processor DSP port
- Not in use in CMOS-MEA5000-Systems!
- 2 Connectors for interface board to headstage
- 2 USB-C ports
- Signal input range for analog channels
- Gain for analog channels

On / Off switch
- MPU 30, PWR DC 0.85 x 2.75 mm
- Common jack 4 mm, banana plug
- 68-pin connector, Honda-PCS-XE68LFD
- Lemo connector, EPL 00250 NTN
- Stereo jack 3.5 mm, PRA.00.250.CTAC29
- 14-pin connector, DIL14Header-100mil-angeled
- External power over iX-industrial cable, type B
- USB-C A and USB-C B
- ± 2500 mV
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Power Supply Unit
- Input voltage range: 110 - 240 V
- Output voltage: 24 V
- Max. power: 65 W
- Mark of conformity: CE, TÜV, cUL
- European standard: EN60601

Software
- Operating system: Strongly recommended: MCS specified PC
  - Microsoft Windows 10 and 8.1 (64 bit), English and German version supported
- Data acquisition: CMOS-MEA-Control
  - Version 2.5.0 and higher
- Analysis software: CMOS-MEA-Tools
  - Version 2.5.0 and higher
- Data export: Multi Channel DataManager
  - Version 1.13.3 and higher