



## Technical Specifications

The **USB-ME64-System** is an analog / digital board converting analog signals in digital data streams in real time.

### General characteristics

Operating temperature	10 °C to 50 °C
Storage temperature	0 °C to 50 °C
Relative humidity	10 % to 85 %, non-condensing
Dimensions (L x D x H)	210 x 210 x 35 mm
Weight	+/- 1750 g

### Signal inputs

Number of analog input channels	64
Input voltage range	+/- 4 V
Input impedance	10 kΩ
Bandwidth	DC to 13 kHz

### Additional analog inputs

Number of additional inputs	4
Input voltage range	+/- 4.096 V
Bandwidth	DC to 15 kHz
Input impedance	1 MΩ    1 nF
DC offset	max. +/- 2 mV

### Digital inputs and outputs

Number of digital input channels	16
Digital input signals	CMOS (3.3 V input)
Number of digital output channels	16
Digital output signals	TTL ( 3.3 V output)
Input impedance	100 kΩ

### Data converter and USB interface

Sampling frequency	up to 50 kHz (software controlled)
Maximal data rate	20.5 MB/s
Data resolution	16 Bit
USB version	USB 2.0 High Speed
Cross talk (neighbour channel)	typical 0.01 %, max. 0.025 %
Cross talk (other channels)	incapable of measurement
DC offset	max. +/- 2 mV

### Interface and connectors

#### Front panel

1 Digital Input	Lemo connector EPL.00.250 NTN
1 x 64 Analog In	68-pin MCS standard connectors, MCS high grade cable

#### Rear panel

1 16 Bit Digital In / Out	68-pin MCS standard connector,
MCS high grade cable	
1 Digital Out D0	Lemo connector EPL.00.250 NTN
1 Sync In	Lemo connector EPL.00.250 NTN
1 Sync Out	Lemo connector EPL.00.250 NTN
1 Audio Output	Stereo jack 3.5 mm
4 Analog Inputs	Lemo connector EPL.00.250 NTN
USB	USB 2.0 High Speed cable (type A – mini B)
Power Supply	Barrel connector 0.7 x 2.35 mm,
Ground	Common jack 4 mm banana plug
External Power through	Lemo connector EPG.0B.303 HLN

#### Power supply unit (MPU 30)

Input voltage	90 – 264 VAC @ 47 – 63 Hz
Output voltage	11 – 13 V
Max. Power	30 W

### Software

Operating system	Microsoft Windows® 8 and 7, XP or Vista with NTFS English and German version supported
Multi Channel Suite software package	Version 1.2.2 and higher
MC_Rack program	Version 3.7.0 and higher
Data acquisition and analysis program	
MC_DataTool program	Version 2.4.5 and higher
Data export	ASCII file (*.txt), binary file (*.raw) format
LTP-Director program	Version 1.2.0 and higher



Warning: The device may only be used together with MEA-Systems or ME-Systems from Multi Channel Systems MCS GmbH, and only for the specified purpose. Damage of the device and even fatal injuries can result from improper use. Do not open the data acquisition box and do not change hardware configuration as it could lead to improper behavior of the system.