

NeuroVisor 136

EEG for researchers



CONSIST OF

- **AMPLIFIER NVX136**
Up to 136 EEG channels. Special design for high noise immunity.
- **ACUMULATOR MODULE**
Up to 12 hours working from full charge.
- **MEDIA CONVERTOR**
For converting optical cable from NVX136 to USB of PC, controlling digital inputs/outputs and scanner synchronization.
- **ELECTRODE SYSTEM**
Light sintered Ag/AgCl electrodes. Innovation material for cap.

UNCOMPROMISING DEVICE FOR EEG AQUISITION

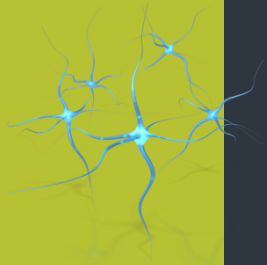
Neurovisor136 designed for a medical-biologic researching in scientific and educational institutions.

Each channel has a direct current input and individual 24-bit analog-to-digital converter for measuring the EEG signal up to 100 thousand times per second.

Possible to extend up to 408 channels by connecting two additional amplifiers to the media convector, which gives a single clock frequency for all ADCs and ensuring synchronous channels conversion.

Software for planning of experiment and recording in to EDF+ 16bit, BDF+ 24bit, GDF 32bit

IN STANDART SET



NeuroVisor 136

DC channels number	136
Dynamic range	not less ± 400 mV
Input resistance / capacity	more 1 GOhm @ DC / 30pF max
Input EEG channels noise	less 0.9 μ Vp-p @ 0,1..30 Hz
Voltage measuring error	not worse $\pm 0.5\%$
DC channels number, connected via AUX	8 monopolar (4 connectors x 2 channels) or 4 differential (4 connectors x 1 channels) <i>set by application SW</i>
Additional dynamic range for channels, connected via AUX	not less ± 2000 mV <i>set by application SW</i>
Analogy-to-digital conversion	24 bit, 6th order delta-sigma modulator with 64x oversampling, one converter per each channel
Sampling rate of amplifier (high frequency at -3dB)	For 64 EEG channels 100 000 Hz (16 000 Hz) Для всех каналов: 50 000 Hz (16 000 Hz) 25 000 Hz (9 000 Hz), 10 000 Hz (4 900 Hz) 5 000 Hz (1 600 Hz) 2 000 Hz (650Hz) 1 000 Hz (300 Hz), 500 Hz (160 Hz), 250 Hz (180 Hz)
Low frequency range at -3dB, created by application SW	set individually for each channel from a range of 0..100Hz or selected from the series 0, 0.001, 0.05, 0.1, 0.5, 1, 2, 5, 10 Hz
Low frequency range at -3dB, created by application SW	set individually for each channel from a range 5000..1 Hz or selected from the series 500, 300, 100, 70, 50, 30, 20, 10, 5, 1 Hz,
TTL triggers input / output	8 / 8 not galvanic isolated from PC
Electrode impedance measurement range (absolute error)	1..120 kOhm ($\pm 10\%$) at 30 Hz
Test EEG signal	meandr 200 μ V ($\pm 1\%$), 1 Hz
Input for external synchronization of ADCs	5..100 MHz, 50 Ohm sin / meandr
Aux sensor powering	5B, up to 100 mA for all sensors with electronic protection
Connecting amplifier – media converter	Optical plastic cable 10 m (option 25 m)
Connecting media convertor – PC	USB V2.0 High-speed 480 MBod
Powering of amplifier	from accumulator module 6 B, 7 A·Ч; current consumption: less 1400 mA for sampling rates of 25 000..100 000Hz, less 500 mA for another sampling rates, less 3 mA in standby mode
Powering of media convertor	from USB 5 B; less 400 mA in active mode, less 5 mA in standby mode
Sizes and mass of amplifier	195x140x35 mm, 1200 gr.
Sizes and mass of accumulator module	195x140x48 mm, 2500 gr.
Sizes and mass of media convertor	90x112x58 mm, 300 gr.