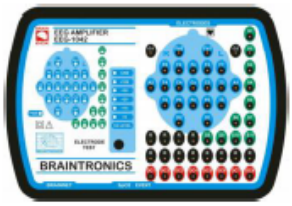
EEG 64 CHANNEL SYSTEMS

A choice of different amplifiers is available to suit every application: different numbers of channels and sampling rates as well as wireless and ambulatory options.

Brainbox-1042



Technical specifications

- Up to 44 channels (32 EEG channels)
- Braintronics IP amplifier: connected to PC via **Ethernet cable**
- Maximum sampling rate: 1024 Hz for 32 EEG channels
- Amplifier resolution: 16 bit
- Input impedance: 10 MΩ ± 1 %

Brainbox-1166

Technical specifications

- 64 EEG channels per unit (up to 256 channels)
- Configurable sampling rate (256 Hz up to 4096 Hz)
- Optional channels: SpO_2, Event Button, DC channels
- Amplifier resolution: 16 bit
- Braintronics IP amplifier: connected to PC via **Ethernet cable**

HIGH TECH INSTRUMENTS, INC.
4995 NW 72 AVE SUITE 205, MIAMI FL, 33166 USA ph 305 320 4838
info@hightechinstruments.com www.hightehinstruments.com

BRAINBOX® Amplifiers

Characteristics	BRAINBOX® EEG-1164 *	BRAINBOX® EEG-1166	BRAINBOX® EEG-1142	BRAINBOX® EEG-1042
Designed for ultra portability and patient convenience in smallest possible case	✓	✓	✓	✓
Designed for stationary use and operator convenience. Mountable on a microphone stand	-	-	-	✓
Designed for maximum system performance regarding total number of EEG channels. (max. 256 with 4 amplifiers)	✓	✓	-	-
Designed for maximum system flexibility regarding EEG- and DC channels, while maintaining the possibility of a large number of EEG channels by adding other amplifiers. (Max. 224 EEG and 8 DC channels)	-	✓	✓	-
EEG Channels digital FIR filtered	64	64	32	32
DC channels	-	-	8	8
G1/G2 active Gnd. for suppression of mains interference	-	✓	✓	✓
Multipin flat cable connector for direct Electrode Cap connection	68 pin	68 pin	68 pin	40 pin
Clip-on Touchproof input box for ultra portability	INBOX-1164	INBOX-1166	INBOX-1142	-
Large Touchproof input box connectable with (flat) cable for flexibility	INBOX-1064	INBOX-1066	INBOX-1042	INBOX-1442N
Integrated Touchproof connectors	-	-	-	✓
SpO2 input	-	✓	✓	✓
EVENT input	-	✓	✓	✓
Selectable SpO2 + EVENT data output. (Uses 1 EEG channel for data transport)	-	✓	-	-
Separate SpO2 data output (Uses its own channel)	-	-	✓	✓
Separate EVENT data output (Uses own channel)	-	-	✓	✓
Power and control over Daisy chain BRAINBUS Connection. Low voltage power supply. (5 V dc from ISO-101)	✓	✓	✓	-
Power and control over BRAINNET Connection. Medium	-	-	-	✓

HIGH TECH INSTRUMENTS, INC.
4995 NW 72 AVE SUITE 205, MIAMI FL, 33166 USA ph 305 320 4838
info@hightechinstruments.com www.hightehinstruments.com

voltage power supply (24 V dc)				
BRAINNET connection for FLASH stimulator	-	-	-	✓
BRAINBUS Addresses selected by INBOX type	4	4	2	-
Fixed BRAINBUS addresses	-	-	-	2
Real input calibration	✓	✓	✓	✓
Electrode impedance check with indication in EEG application running on PC	✓	✓	✓	✓
Electrode impedance check on integrated LED panel	-	-	-	✓
Electrode impedance check override on amplifier	-	-	-	✓
Integrated ISOLATOR	-	-	-	✓
ISO-101 ISOLATOR	✓	✓	✓	-
Brainbox protocol	✓	-	-	-
Extended Brainbox protocol	-	✓	✓	✓

.

HIGH TECH INSTRUMENTS, INC.
4995 NW 72 AVE SUITE 205, MIAMI FL, 33166 USA ph 305 320 4838
info@hightechinstruments.com www.hightehinstruments.com