



GraeL LT EEG

grael[®] LT

Industry-leading value amplifier with research-grade technology.

A DC-coupled, digital amplifier system with a high input range and 22-bit resolution providing amplification and digitization of electroencephalographic physiologic signals. The amplifier provides 38 channels (32 isolated high-frequency referential channels, 6 bipolar channels) and event button input. The unit has a POE 100BASE-TX network connection for both power and communication.

Technical specifications

INPUTS 32, DC-coupled, fully isolated, referential (monopolar); 6 user-defined, DC-coupled, fully isolated, bipolar inputs

INPUT IMPEDANCE >100 M Ω 1-32;
>20 M Ω 33-38

BIAS CURRENT typically 1nA

INPUT NOISE < 2 μ Vpp typical (referential ch)

INPUT RANGE 600mVpp

CMRR > 100dB

CROSSTALK < -60dB to adjacent channels FSR

HIGH PASS FILTER DC Coupled

LOW PASS FILTER (3dB):
71 Hz at 256 s/s
143 Hz at 512 s/s
284 Hz at 1024 s/s
580 Hz at 2048 s/s

NOTCH FILTER Software based display filtering of 50Hz, 60Hz, or off

ISOLATION SPECIFICATIONS
Complies with IEC 60601-1 CF patient Inputs

ANALOGUE TO DIGITAL CONVERTER
22 bit resolution

SAMPLE AND DATA RATES CHANNELS 1 TO 38
Data sampled at 16384 samples per second and decimated to data rates shown below. Actual data rate sent is determined by controlling PC software application.

Output data rate 2048, 1024, 512 or 256 samples per second

COMMUNICATION INTERFACE
Network Type 802.3/802.3u twisted pair Ethernet with auto MDIX; RJ45 connector.

EVENT BUTTON CHANNEL x 1

DIMENSIONS

Grael EEG System Component	Size L x W x H	Weight
Amplifier	240mm x 144mm x 50mm 9.45in x 5.66in x 1.97in	700 grams 24.7 ounces

ENVIRONMENTAL REQUIREMENTS

Temperature Ambient operating temperature range:
0°C - 40°C (32°F - 104°F)
Storage temperature range:
-10°C - 50°C (-4°F - 122°F)

Humidity 20% - 90% relative humidity (non-condensing)

Altitude Less than 3,000m

ELECTRICAL SPECIFICATIONS

Power Supply All power provided by the network connection using Power Over Ethernet (either mid-span injector or POE Switch, per IEEE 802.3af standard)

Operating voltage 48 volts

Power consumption <10 watts



Your Local Distributor: