

Trackit t4A Amplifier

28 monopolar/4 bipolar touch proof inputs

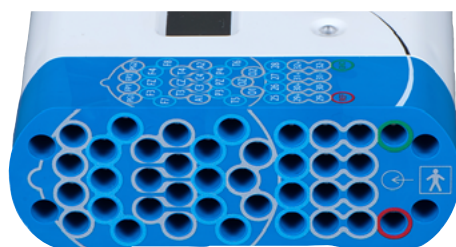
SPECIFICATIONS

Lifelines' EEG Systems and Applications

- Ambulatory EEG Amplifier for use with Lifelines portable systems
- Compatible with Trackit and Trackit Plus software
- EEG may also be reviewed in Persyst Insight

Amplifier Features

- Acquisition of EEG in referential mode
- DC recording option on all channels
- 28 monopolar channels
- 4 channels configurable for bipolar or referential
- International 10-20 system – see below



- All inputs are BF isolated
- Front end calibration
- Continuous impedance check
- Simultaneous sampling on all channels (wired and wireless)
- High sampling rates: 250-2000 Hz
- LCD display with backlight
- Multi-function button on front panel
- Data storage on optional SD card
- Transmits data either wirelessly or wired
- Battery or USB power option



Designed and manufactured in Great Britain

Amplifier Specifications

EEG inputs: 28 monopolar touch proof inputs/ 4 bipolar touch proof polygraphy inputs

- ADC Resolution 24 bits
 - Sampling 250-2000 Hz simultaneous sampling all channels
 - Input impedance >20 MΩ
 - Common mode rejection ratio >100dB @ 50 and 60 Hz
 - Equivalent input noise <3μVp-p, <0.5uV rms
 - Gain 8 ±0.5%
 - Max Input Vdiff 750mVpp (including DC)
 - Quantization 0.17uV/bit @ Gain = 8 and Bits = 22
 - Bandwidth (-3dB) DC to 524Hz @ 2000Hz sampling
 - Max common mode input voltage 0.4Vpp
 - Input bias current < ±0.3 nA
 - Front-end Calibration 8mVpp ±5% at 0.98Hz
 - Impedance Check current 24nA ±20% at 7.8Hz
- Additional settings of DC+, DC-, 31.2Hz, fDR/4, 6nA, 6uA and 24uA also provided

DC Bipolar Inputs (shared with 4 AC polygraphy inputs)

- ADC Resolution 24 bits
- Sampling 250-2000 Hz simultaneous sampling all channels
- Input impedance >20 MΩ
- Common mode rejection ratio >100dB @ 50 and 60 Hz
- Equivalent input noise <3uVp-p, 0.5uV rms
- Gain 8 ±0.5% (AC), 2 ±0.5% (DC)
- Max Input Vdiff 750mVpp AC setting (including DC), 3Vp-p DC setting
- Bandwidth (-3dB) DC to 65Hz @ 250 Hz sampling

(continues overleaf)

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Amplifier Specifications (continued)

Connections, ports and controls

- 38 Electrode Input Connectors, BF isolated, touch proof 1.5mm
- Remote patient event marker input, TTL digital pulse (5V or 3.3V), 3.5mm Jack socket
- Host PC connector (USB), isolated from patient
- LCD display with backlight showing
 - Time of day, elapsed recording time, memory card capacity, wireless status
- Multi-function button on front panel for
 - Patient event marker
 - On/Off
- Internal auditory beeper to acknowledge user input
- SD card port
- LED for SD card activity

Internal and External Batteries

The t4A operates on removable, rechargeable lithium-ion batteries, which are housed in the amplifiers battery compartment. The batteries allow wireless recording for up to 72 hours. An internal rechargeable battery provides 20 minutes backup.

Amplifier memory

- SD card (up to 64GB)

Operating environment

- Temperature: +5°C to +40°C
- Relative humidity 15% to 93% non-condensing
- Atmospheric pressure: 700mB to 1060mB

Dimensions and weight

- Dimensions: 12.6cm x 8.5cm x 3cm
- Weight: 250g (350g with batteries)



Quality System

- ISO 13485 Quality System

Compliance with regulatory standards

Designed, tested, manufactured and certified to meet the following standards:

- **IEC 60601-1 and IEC 60601-2-26**
Standard for medical electrical equipment, general requirements and particular requirements for EEG systems.
- **ANSI/AAMI ES 60601-1**
US national differences
- **CAN/CSA 22.2 No 60601-1:14**
Canadian national differences
- **IEC 60601-1-2**
Standard for medical electrical equipment, EMC requirements
- **IEC 60601-1-11**
Standard for medical electrical equipment used in the home environment.
- European Community Class IIa Medical Device Directive (MDD) product to comply to EC Directive 93/42/EEC, as amended by Directive 2007/47/EC.
- FDA 510(k) clearance for marketing K172271
- RoHS Directive 2011/65/EU
- WEEE Directive 2002/96/EC

CE 0086

V01 2019