

## Trackit T4 68 Amplifier + Extended PCU

64 monopolar/4 bipolar touch proof inputs

(Also available with 24 monopolar/8 bipolar touch proof inputs.

Please contact us for further details.)

### SPECIFICATIONS

#### Lifelines' EEG Systems and Applications

- Telemetry EEG Amplifier for use with Lifelines' clinical, portable, LTM systems
- Compatible with Trackit and Trackit Plus software
- EEG Recordings may also be reviewed with Persyst Insight (version 13)

#### Amplifier Features

- Acquisition of EEG in referential mode
- DC recording option on all channels
- 64 monopolar channels  
4 channels configurable for bipolar or referential
- 1 aux high-level input channel
- Inputs are arranged in simple numeric grid – 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
- Nonin interface gives HR, SaO2 and pulse-wave (plethysmogram)
- LCD display with backlight
- Multi-function button on front panel
- Data storage on optional micro-SD card
- Transmits data either wirelessly or wired
- Battery or USB power option



Designed, tested and manufactured in Great Britain

#### Amplifier Specifications

##### EEG inputs: 64 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 <1.5μVpp, <0.2uV rms
  - Gain 12 ±0.5%
  - Max Input Vdiff 750mVpp (including DC)
  - Quantization 0.17uV/bit @ Gain = 12 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

##### Aux, high-level Input

- 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 <1.5μVpp, <0.2uV rms
- Gain 12 ±0.5% (AC), 4 ±0.5% (DC)
- Max Input Vdiff 750mVpp AC setting (including DC), 2.25 Vpp DC setting
- Bandwidth (-3dB) DC to 65Hz @ 250 Hz sampling

(continues overleaf)

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### Amplifier Specifications (continued)

#### Connections, ports and controls

- 76 Electrode Input Connectors, BF isolated, touch proof 1.5mm
- Aux DC input, 3.5mm Jack socket (channel 39)
- Nonin Xpod (Binder 710 series 3-pin socket) for SaO2
  - Nonin interface gives HR, SaO2 and pulse-wave (plethysmogram)
- 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
- Micro-SD card port
- LED for micro-SD card activity

#### External and Internal Batteries

- Internal rechargeable battery (15 min) enables the use of interchangeable, external, rechargeable power banks. This allows the device to run wireless for as long as desired. Each power bank will allow recording for up to 36 hours.  
**Important:** the amplifier and external power bank both fit into the patient wearable pouch.

#### Amplifier memory

- Micro-SD card (optional)

#### Operating environment

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

#### Dimensions and weight

- Dimensions: 17cm x 9cm x 4cm/6.7in x 3.5in x 1.6in
- Weight: 360g/0.80lbs

### 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



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