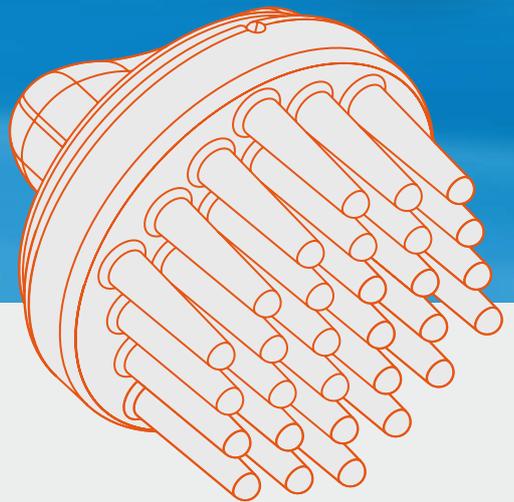


# waveguard™ touch

Get in touch with the future



Research grade EEG signal quality with a single touch



ant neuro  
inspiring technology

# waveguard™ touch

## Get in touch with the future

waveguard™ touch is a dry electrode EEG cap. The unique Ag/AgCl coated flexible polymer electrodes provide stable, research-grade EEG signals while maintaining subject comfort. This great innovation paves the way for the future of EEG with many exciting application areas. The combination of these innovative dry electrodes and the industry-leading waveguard cap makes waveguard touch the best solution for dry EEG.

The waveguard touch is the result of many years of research in collaboration with partners worldwide, specifically the Faculty of Engineering at the University of Porto and the Institute of Biomedical Engineering and Informatics at the Technical University of Ilmenau, as well as the EU-funded "ANDREA" FP7-PEOPLE Marie Curie project ([andreaproject.eu](http://andreaproject.eu)) with contributors from various countries.

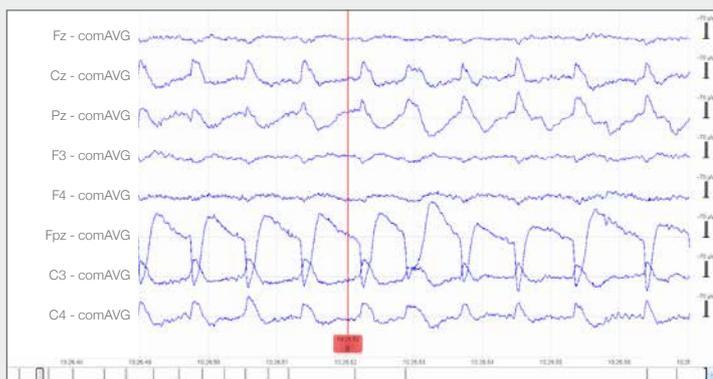
Coated Ag/AgCl electrodes provide stable, research-grade EEG

Electrode wires are intergrated into the double layered cap fabric

Various electrode heights for homogeneous contact and pressure distribution

Flexible, multi-pin electrode design ensures consistent contact quality, even through hair

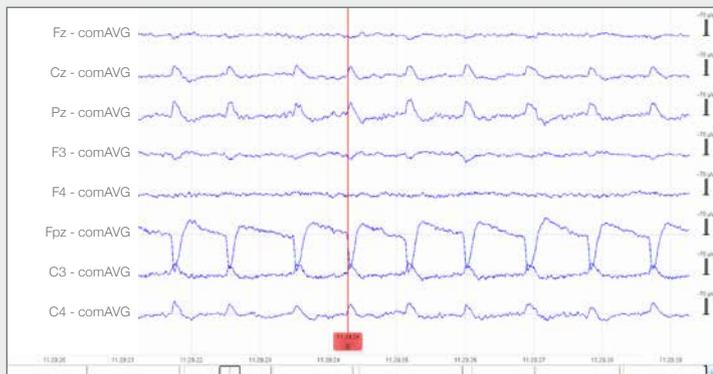
*Left side of the cap depicted inside out*



### DRY ELECTRODE EEG CAP

eyeblinks

waveguard™ touch  
8 channel recording  
dry electrode cap  
0.3 - ∞ Hz  
Notch 50 Hz



### CONVENTIONAL EEG CAP

eyeblinks

waveguard™ original  
8 channel recording  
gelled electrode cap  
0.3 - ∞ Hz  
Notch 50 Hz

Good GND and REF contact is very important for the overall signal quality of all channels, and is ensured through using adhesive pad electrodes.



“ This makes **waveguard** touch a perfect EEG cap for conducting experiments swiftly with minimal preparation.

- Prof. Dr. David Liley & Dr. Levin Kuhlmann

“The **waveguard** touch dry EEG cap provides quick setup times and good signal quality. This is especially important since we want to be able to test a lot of athletes, on a daily basis. With their limited time for the recordings, we have to finish complete sessions within just 20 minutes. Right now, we are doing up to 60 recordings a week with **waveguard** touch, and very happy to be able to make such rapid progress in our data collection.”

- Dr. Brian Murphy, Chief Scientific Officer - BrainWaveBank Ltd. - Belfast, Ireland

“We have compared the **waveguard** touch dry EEG cap to the conventional gelled Ag/AgCl electrodes in a multi-centric study with 20 participants. Electrophysiological paradigms were successfully extracted such as eyeblinks, resting EEG spectra and ERPs, and for the features examined no significant differences could be detected towards conventional sensors. This makes the **waveguard** touch a perfect EEG cap for conducting experiments swiftly with minimal preparation.”

- Prof. David Liley and Dr. Levin Kuhlmann - Swinburne University of Technology - Melbourne, Australia

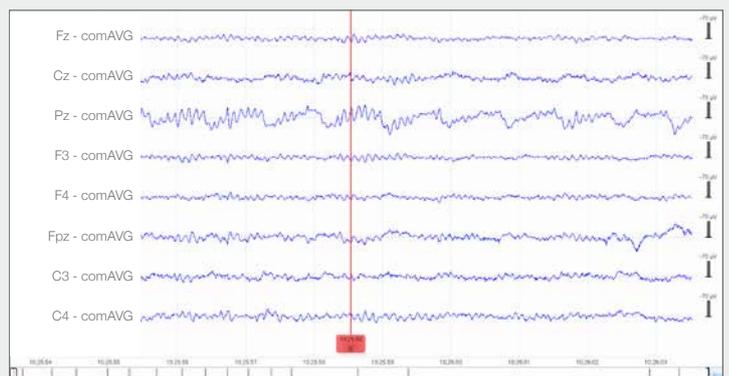


- Available in 8- and 64-channel variants.
- Available in sizes infant through large adult to ensure a precise fit for many different head shapes (divided by fabric color)
- Best in class signal quality and comfort
- Active shielding technology and **eego** software artefact correction for clean EEG signals
- **Right side** depict the regular way of wearing

## DRY ELECTRODE EEG CAP

eyes closed

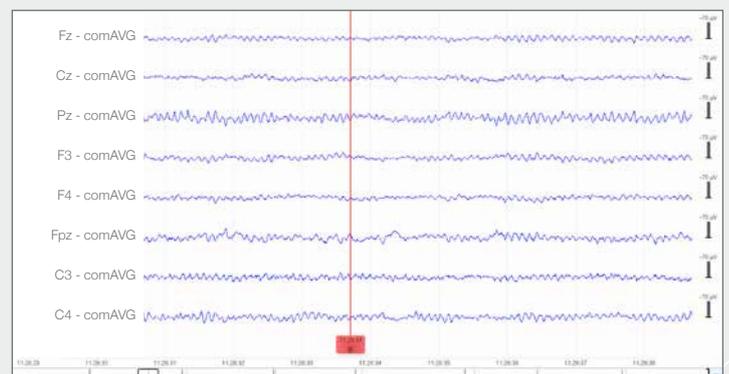
**waveguard™**touch  
8 channel recording  
dry electrode cap  
0.3 - ∞ Hz  
Notch 50 Hz



## CONVENTIONAL EEG CAP

eyes closed

**waveguard™**original  
8 channel recording  
gelled electrode cap  
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**Good GND and REF contact is very important for the overall signal quality of all channels, and is ensured through using adhesive pad electrodes.**

# waveguard™ touch

## Available cap sizes

| Order Code | Sizes           | Head circumference (cm) |      | Fabric color scheme |   |   | Number of electrodes in cap |    |
|------------|-----------------|-------------------------|------|---------------------|---|---|-----------------------------|----|
|            |                 | Min.                    | Max. |                     |   |   | 8                           | 64 |
| CY-XXX.11  | <b>L</b> Large  | 55                      | 60   | ●                   | ● | ● | ●                           | ●  |
| CY-XXX.10  | <b>M</b> Medium | 50                      | 55   | ●                   | ● | ● | ●                           | ●  |
| CY-XXX.09  | <b>S</b> Small  | 46                      | 50   | ●                   | ● | ● | ●                           | ●  |
| CY-XXX.08  | <b>C</b> Child  | 42                      | 46   | ●                   | ● | ● | ●                           | ●  |
| CY-XXX.07  | <b>I</b> Infant | 38                      | 42   | ●                   | ● | ● | ●                           | -- |

## Designed for eego™

**waveguard touch is fully compatible with your eego amplifier and eego software. The active shielding technology and built-in artifact correction algorithms eliminate noise and artefacts for clean, dry EEG signals.**

The **eego** artefact reduction module\* is an artefact reduction and interpolation feature, specifically designed for dry electrodes. With this module, the

64-channel **waveguard touch** cap truly shines and is unique in the market. It unlocks two powerful tools: a method for reducing the artefacts, resulting in 64

cleaned channels, and an interpolation method that allows you to project the high dimensional data to a standard 21 channel clinical layout.



64-channel **waveguard touch** paired to an **eego mylab**



8-channel **waveguard touch** paired to an **eego 8**

| Compatibility matrix                                 | eego™mylab                                     | eego™sports                                   | eego™rt 8       | eego™trainer 8  |
|--|--|---|-----------------|-----------------|
| <b>waveguard touch cap</b>                           | CY-261 (64 ch.)                                | CY-261 (64 ch.)                               | CY-401 (8 ch.)  | CY-401 (8 ch.)  |
| <b>eego amplifier</b>                                | EE-2XX   | EE-2XX  | EE-411 / EE-430 | EE-411 / EE-430 |
| <b>eego artifact reduction module*</b> (64 channels) | Optional for <b>eego mylab</b> 64, 128 and 256 | Optional for <b>eego sports</b> 64 and 64 pro | Not available   | Not available   |

\* Experimental feature provided for evaluation purposes only. Not to be used for diagnostics purposes. Not supported on older EE-20x amplifiers. **eego™sports** users with the older amplifier are advised to upgrade both amplifier and software (releases 8.0 and higher) in order to unlock this module.



Scan the code for more info about **waveguard touch**, our dry EEG solutions, success stories, showcases, videos and the latest developments.

Interested to schedule a demo or request a customised quote? Visit us at **www.dry-electrodes.com**

**eego™** amplifier is CE marked as a medical device in the EU, according to MDD 93/42/EEC, class IIa. Outside the EU **eego** amplifier is intended for research and educational purposes only.

**waveguard™** caps are CE marked as medical device in the EU, according to MDD 93/42/EEC, class I. Outside the EU the **waveguard touch** caps are intended for research and educational purposes only.

Information in this document is subject to change.

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[www.ant-neuro.com/products/waveguard\\_touch](http://www.ant-neuro.com/products/waveguard_touch)  
[www.dry-electrodes.com](http://www.dry-electrodes.com)

