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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 47346-2026

**Information technology - Brain-computer interfaces - Coding
and decoding of visual evoked potential data**

信息技术 脑机接口 视觉诱发电位数据编解码

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1 Scope

GB/T 47346-2026 is the Chinese national standard covering the visual evoked potential BCI - the flickering stimuli, the EEG response they produce and the encoding and decoding that turns that response into a selection, which is the most practical non-invasive brain-computer interface there is. First edition, in force since 1 October 2026, and one of the earliest national standards anywhere on BCI data. It was issued on 31 March 2026 and takes effect on 1 October 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the data encoding and decoding process for visual evoked potentials in brain-computer interfaces, as well as the data involved in the encoding and decoding process. Requirements for metadata, peripheral drivers, and feedback. This document applies to research institutions, manufacturing companies, and third-party testing organizations in the design, development, and application of visual evoked potential brain-computer interfaces. And testing.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 7408.1 Representation for the Interchange of Date and Time Information - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Brain-computer interfaces (BCI) A system for establishing a direct communication connection between the central nervous system of humans or other animals and external hardware and software systems.

Note. Brain-computer interfaces enable one-way or two-way communication with external devices and can be used to achieve control and/or feedback. [Source: GB/T 47023-2025, 3.1]

3.2 Bioelectric signals generated by the firing of neurons in the brain.

3.3 An electrophysiological neural response induced by external visual stimuli, manifested as a detectable potential.

3.4 lead Voltage between electrodes. [Source: GB 9706.226-2021,.201.3.205]

9.3 Output delay

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1. Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Information Technology Standardization Technical Committee (SAC/TC28). This document was drafted by: Tianjin University, Haihe Laboratory for Brain-Computer Interaction and Human-Computer Collaboration, China Electronics Technology Standardization Institute, and Zhejiang University. South China University of Technology, Beijing Institute of Mechanical Equipment, China Electronics Cloud Brain (Tianjin) Technology Co., Ltd., East China University of Science and Technology, Shanghai University, China Information and Communications Technology Research Institute, Beijing University of Posts and Telecommunications, Qilu University of Technology (Shandong Academy of Sciences), South China Normal University, Chinese Academy of Medical Sciences Biomedical Engineering Research Institute, Sheng Gong Ding (Tianjin) Technology Co., Ltd., Tiankai Suishi (Tianjin) Intelligent Technology Co., Ltd., and Boruikang Technology (Shanghai) Joint-stock limited company. The main drafters of this document are. Ming Dong, Xu Minpeng, Xiao Xiaolin, Luo Ruixin, Mei Jie, Dong Jian, Yu Yuntao, Pan Gang, Li Yuanqing, Zhang Lijian, and Cheng Longlong. Jin Jing, Yang Banghua, Zhang Qian, Yang Chen, Huang Yongzhi, Wang Kun, Meng Jiayuan, Xu Fangzhou, Pan Jiahui, Chen Xiaogang, Yu Haiqing, Zhang Hao, Zhang Jiayang, Wu Jieyu Sun Yu, Sun Wenjing, Cui Bing, Hu Huizhong, Liang Liyan, Leng Jiancai, Sun Changcheng, You Jia, Gu Bin, Yuan Ding, Tang Jiabei, Huang Xiaoshan, Pu Jiangbo, Wang Yueming Yu Tianyou, Chang Yuan, Fan Xin'an, Feng Chao. Information technology brain-computer interface Visual evoked potential data encoding and decoding