

SENSE EVERY MOMENT OF LIFE

守护生命的千万个瞬间

QIANYU

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OCT-HD

512通道超高密度肌电采集分析系统

512 - CHANNEL ULTRA-HIGH-DENSITY EMG ACQUISITION
& ANALYSIS SYSTEM



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面向神经肌肉、康复评估与运动控制研究的高密度电生理采集分析平台

A high-density electrophysiological data acquisition and analysis platform for neuromuscular research, rehabilitation assessment, and motor control studies

-  精准同步
Precise Synchronization
-  高精度 低噪声
High accuracy Low noise
-  全通道阻抗检测
All-channel Impedance Detection
-  神经元分解算法
Motor-unit Decomposition algorithm

Oct-HD是一款可穿戴的分布式高密度肌电采集系统, 包含采样模块、基站和配套软件。每个模块可采集64通道肌电与九轴运动姿态数据, 结合专用绑带可轻松固定在肢体与躯干任意位置。本系统基于专利同步技术, 最高支持8个模块、512通道同时工作, 在线和离线(无需无线网络连接)状态下均可实现多模块的微秒级同步采样, 满足多场景需求。

Oct-HD is a wearable, distributed high-density electromyography acquisition system comprising acquisition modules, a base station, and dedicated software. Each module records 64 channels of electromyography together with nine-axis motion and posture data. Dedicated straps allow flexible placement on the limbs or trunk. Based on proprietary synchronization technology, the system supports up to eight modules and 512 channels operating simultaneously. It provides microsecond-level synchronized acquisition across multiple modules both online and offline, without requiring a wireless network, meeting the needs of diverse research applications.

应用场景

APPLICATION SCENARIOS

神经康复评估

Neurorehabilitation Assessment



用于偏瘫、脊髓损伤、周围神经损伤等康复研究, 采集不同肌群的高密度肌电信号

High-density EMG for hemiplegia, spinal cord injury and peripheral nerve injury research

运动科学与训练分析

Sports Science & Training Analysis



适用于运动表现评估、动作技术分析、肌肉疲劳监测和损伤风险研究

Performance assessment, technique analysis, muscle-fatigue monitoring and injury-risk studies

人机交互

Human-Machine Interaction



适用于动作意图识别、智能假肢控制与交互系统研究

Suitable for motion-intent recognition, intelligent prosthetic control, and interactive system research

体育科学研究

Sports Science Research



适用于动作分析、疲劳监测、训练优化与损伤预防

Suitable for motion analysis, fatigue monitoring, training optimization, and injury prevention

典型流程

TYPICAL WORKFLOW



配置实验

Configure Experiment



佩戴电极

Apply Electrodes



阻抗测试

Impedance Test



同步采集与事件标记

Synchronized Acquisition & Event Marking



数据导入分析

Data Import & Analysis

产品参数

PRODUCT SPECIFICATIONS

参数项 PARAMETER	指标 SPECIFICATION
通道数 Channels	73ch (64ch EMG + 9ch IMU) * 8 73ch (64ch EMG + 9ch IMU) * 8
数据传输与存储 Data transfer & storage	机身内存32GB WiFi (非必需) 32 GB onboard memory; Wi-Fi optional
最大采样率 Maximum sampling rate	2000sps 2000sps
分辨率 Resolution	24bit 24bit
CMRR CMRR	>100 dB >100 dB
输入阻抗 Input impedance	>100MΩ >100MΩ
同步性 Synchronization	<0.5ms (模块内) <2ms (模块间, 离线同步无需联网) <0.5 ms within module; <2 ms between modules; offline, network-free
待机时间 Battery life	>4h (WiFi连接) >8h (离线模式) >4 h with Wi-Fi; >8 h offline
输入噪声 Input noise	6μVrms 6μVrms

* 图片展示效果仅供参考, 以实物为准。 Images are for reference only. Please refer to the actual product.