DSQ 3500

CTF

SIMPLY THE FASTEST MEG ELECTRONICS

25 YEARS LEADING THE WAY

the superior measurement of human brain function

THE NEW DSQ 3500

SIMPLY THE FASTEST MEG ELECTRONICS

Latency <300 µS from helmet to workstation

DSQ-3500 Electronic Subsystem for CTF MEG Instruments

CTF MEG instruments, featuring the world's most advanced SQUID sensor array and noise suppression system can now be paired with the DSQ-3500 Electronic Subsystem - another extraordinary advance in SQUID sensor control, signal processing, and data communication for MEG.

The DSQ-3500 is available for CTF MEG 151 and 275 channel sensor arrays when purchasing a new or refurbished CTF MEG instrument. In addition, the DSQ-3500 is a drop-in upgrade for existing DSQ-2000/2005 subsystems in operation worldwide.

With the DSQ-3500 subsystem upgrade, operators of current DSQ-2000/2005 equipped instruments will enjoy system-wide performance advances including:

- Ultra-low latency communication system
- 60% greater bandwidth across all channels
- High performance EEG
- Size and power reduction of more than 80%

These significant performance advances combined with conservation of space and energy will ensure CTF MEG labs are equipped to continue the advancement of MEG sciences.

DSQ 3500

Specifications Summary*

MEG Channels	151 to 275 channel standard or custom CTF MEG Sensor Arrays
MEG Dynamic Range	32 bits, +/- 600 nT full scale range, Linearity > 10^{-6}
Head Localization (HLU)	Provision for up to 5 head coils with continuous head localization and a phantom drive signals
EEG Channels	63 or 127 channels, each with 8 configured as bipolar, touchless 10-20 and ZIF style connectors
EEG Dynamic Range	24 bits, +/- 250 mV input range EEG and HLU head-box
System Noise	MEG typically 4-7 fT-rms/$\sqrt{Hz}$, EEG typically <2 μV_{PP} (70 Hz BW)
Sample Rate	All channels up to 19,200 SPS, simultaneous on all channels
Trigger Inputs	32 TTL level inputs
ADC Inputs	16 ADC inputs, 24 bit dynamic range, +/- 10 V input range
DAC Outputs	4 DAC outputs, 16 bit dynamic range, +/- 10 V, configurable waveforms
Communication	TCP/IP, optical 10Gb/s optical Ethernet
Power	110 – 240 VAC 50/60 Hz, < 500 Watts
Rack Size	12U high 19” rack enclosure cabinet (~ 600 mm wide, 620 mm deep, 780 mm tall)

Specifications are accurate at the time of publication but are subject to change without notice.

About CTF MEG Technology

For more than 25 years, CTF MEG instruments have led the way with superior measurement of human brain function. Magnetoencephalography (MEG) stands alone as a modality capable of non-invasively revealing the deep mysteries of human brain function and CTF MEG is the technology and performance leader in MEG instrumentation.

CTF MEG instruments have a well-earned reputation as the highest performing and the most robust available. CTF SQUID sensor technology, noise suppression methods, and instrument engineering began with the challenging application of airborne submarine detection. The CTF technologies successfully developed to meet the challenges of this hostile environment continue to benefit CTF MEG instruments.

Sales and Support

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