The use of continuous EEG (cEEG) can enhance the neurological assessment and care of critically ill patients through early detection of reversible neurological deterioration. Nihon Kohden amplifiers’ superior signal quality ensure reliable cEEG trends. The QP-160 application is designed to fully integrate the EEG-1200 data with user-selectable trends over time. Areas of clinical interest are easily recognized at the bedside and provide clinicians fast review capabilities of the associated EEG data over days, and even weeks, in a single display with synchronized audio and video data.
Superior Amplifier Solutions

Nihon Kohden amplifiers have long been regarded for delivering superior signal quality using the highest recording specifications available. Our flagship JE-921 provides flexibility and configurability that is exclusive in the industry. With a full 10-20 electrode array, 14 bipolar inputs, built in End Tidal CO$_2$ and SpO$_2$, this proven technology will increase ease of use and recording power for all types of EEG recordings.

When reliable trend data is instrumental in detecting subtle changes over time, you can rely on the superior signal processing that has defined Nihon Kohden amplifiers for decades, even in adverse recording environments.

Data Capture and Analysis

The QP-160 application offers quantitative EEG and real-time trend displays to quickly identify changes over time. Color coded annotations, as well as integrated event logs, facilitate the review process. View real-time EEG and a variety of single or dual time base trend displays for short- and long-term trend comparison either at the bedside or remotely.

- In spectral analysis, the EEG signals acquired by the EEG-1200 are analyzed with FFT for display of DSA, spectral edge, power and power ratio measurements
- Asymmetry for DSA and FFT power trends can be displayed
- Amplitude integrated EEG (aEEG) is displayed in a time compressed format and is inclusive within the QP-160 application
- Burst suppression parameters include burst suppression ratio (BSR), inter burst interval (IBI), and bursts per minute (BPM)
- Trend relationships between real time EEG changes and vital sign monitor data such as HR, SpO$_2$ and EtCO$_2$ along with other DC parameters for multimodality monitoring
- Real-time numeric values are displayed with the trends
- Optional comprehensive EEG monitoring pack (CPA) from Persyst® includes Reveal™ Rosetta and MagicMarker®

These user-selectable trends allow review of data for a patient’s entire recording of several days, even weeks in a single display. Use integrated annotation and editing tools to navigate through the record. Customize the layout of the EEG and trend display on acquisition and review for convenient navigation between trend and EEG data. Optional synchronized digital video enables confirmation of EEG traces vs. environmental artifacts. Our unique artifact detection algorithm marks the trends influenced by electrode artifact for more reliable interpretation.
**Vital Sign Integration**

Vital sign integration through the Neurofax DC input or optional bedside monitor interface allows for time synchronized EEG, vital sign numerics and QP-160 trending. This real-time correlation between EEG and physiological parameters such as HR, SpO₂, MAP and ICP assists in monitor-guided decision support.

The integration of the vital sign data is available at the bedside, as well as remotely for more timely EEG intervention by the reviewing clinician.

The QP-160 is flexible, yet comprehensive and integrates cEEG and vital sign trends into Nihon Kohden’s latest and trusted high quality EEG-1200 and EEG-1250 instrumentation.

**Configuration Flexibility**

Sensitive to the space constraints in the busy ICU setting, Nihon Kohden offers a wide range of configuration options from portable flexibility to dedicated bedside monitoring.

- Fixed, fold-away wall-mount options
- Portable, compact cart-based systems for multi-room and multi-purpose use
- All-in-one PC with easy-to-use optional touch screen monitor interface and virtual keyboard with lock feature for unattended systems
Care and Services

**Clinical and Technical Training**
To maximize utilization and satisfaction with your new system, registered Clinical Support Specialists are available for customized product training programs at your facility. Nihon Kohden also offers cEEG program consultancy tailored for your clinical care.

**Technical Support**
With greater demand for product standardization, data integration and networking, Nihon Kohden employs highly qualified Applications and IT Specialists to work with you to design a customized solution and site plan around your workflow, data access and data management requirements. Nihon Kohden offers direct Field Service Support backed by a team of certified Technical and Clinical Support Specialists. The specialists are available to assist around the clock with hardware and applications support. The team can securely connect into your system using remote diagnostics tools if needed.

**JE-921 Multimodality 10-20 System Amplifier**

<table>
<thead>
<tr>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Inputs:</td>
</tr>
<tr>
<td>32 Channels Total</td>
</tr>
<tr>
<td>10-20 Input Layout</td>
</tr>
<tr>
<td>3 Dedicated Bipolar Channels</td>
</tr>
<tr>
<td>4 Programmable Bipolar Channels</td>
</tr>
<tr>
<td>4 DC Channels</td>
</tr>
<tr>
<td>Optically Isolated</td>
</tr>
<tr>
<td>Input Impedance: 100 MΩ</td>
</tr>
<tr>
<td>CMRR: &gt;105dB</td>
</tr>
</tbody>
</table>

**Internal Noise Level:**
\(<3\mu V\ p-p\ (0.53-120Hz)\)

**High Cut Filter:**
300 Hz (-18 dB/oct)

**Low Cut Filter:**
0.016-160 Hz

**Sampling Frequency:**
Up to 1000 Hz

**Service Agreements**
To assist you in delivering maximum system uptime, we offer flexible service agreement options and extended warranties available at the time of purchase or at any time during the warranty period.

**Supplies and Accessories**
To supplement the superior performance offered by our cEEG monitoring solutions, we offer a full line of quality electrodes and supplies.

**Our Commitment to You**
When performance counts, you can rely on Nihon Kohden to assist you in delivering the highest quality patient care as efficiently as possible. Nihon Kohden is committed to bringing trusted and innovative solutions to the changing demands of the neurocritical care field today and into the future.