Signature System™

DataNode®/InfoNode®

DualNode

PQ monitoring and energy management combined with analysis, notification, and web server functions all in one unit

Single Point, Service Entrance, and Short-Term Monitoring

The Dranetz-BMI Series 5590 DualNode™ combines power quality monitoring and energy management with analysis, notification, and web server functions into a single unit. The functions of the EPQ DataNode and InfoNode have been integrated to serve applications with a limited number of monitoring points or to facilitate short-term audits. Whether serving as a service entrance monitor for a facility just beginning a power quality program or providing monthly audits from various points within a facility or a service territory, the 5590 provides the complete set of capabilities needed for determining power quality compatibility and energy usage.

Access to an extensive set of visualization and analysis tools, as well as standard or customized reports is as easy as clicking your web browser. No specialized software or PC hardware is needed. Here's how the process works:
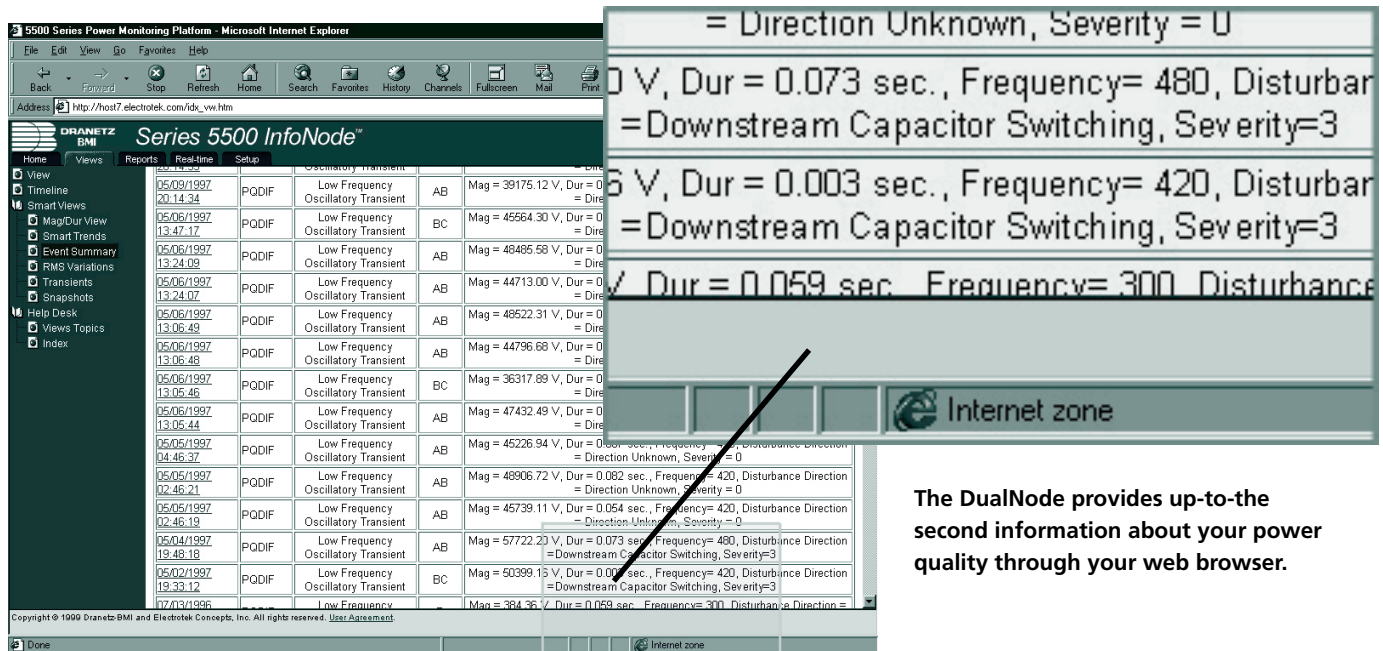
- **Data** is gathered in state-of-the-art data acquisition devices;

- **Information** is assembled and delivered in intuitive and useful formats;

- **Answers** to complex problems such as the location of a disturbance or when to shed load are provided by proprietary AnswerModules®, smart tools for data interpretation and analysis incorporating hundreds of monitoring years worth of data;

- **Knowledge** obtained enables users to establish a baseline needed to improve performance and lower operating and maintenance costs.

Advanced Features Ensure All Information Is Captured

From submicrosecond transients to long duration interruptions, the DualNode's advanced triggering and database management techniques ensure that all critical information is captured and retained. Adaptive sampling techniques provide min/max/avg RMS values, updated every half cycle, along with up to 22 continuous waveform cycles of event data. Harmonic, interharmonic, and power parameters are calculated using internationally recognized standard algorithms.

The 5590 can be permanently mounted into a standard 19" rack, placed on table top or shelf, wall mounted with adapter brackets, or carried from site to site with convenient carrying handles. An internal UPS keeps the 5590 collecting critical data, even when power is interrupted due to fault conditions. Options such as GPS time synch and cross triggering can expand the functionality of the 5590 into a larger scale system. Data can be permanently archived or uploaded via NodeLink® for additional analysis in DranView®.

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The DualNode provides up-to-the second information about your power quality through your web browser.

Specifications for 5590 DualNode

Configurations	External CT and voltage pods; 1A/5A current with 5x overcurrent.
Measurements	160 parameters, including tru 1/2 cycle RMS sags & swells, interruptions, microsecond transients, kVA, KW, True PF, DPF, KVAR, kWhr, kVAR and other power related parameters, TIF, K-factor, THD, individual harmonics through 50th, 45-675 Hz phase locked sampling, Up to 22 cycles of waveform per event.
Voltages	4 channels, accuracy +/- 0.1% of reading, +/- 0.1% FS.
Currents	4 channels, accuracy +/- 0.1% of reading, +/- 0.1% FS.
Instrument Power	90-250Vac, 50/60Hz; optional 105-150Vdc; built-in UPS with 4-year battery life.
Enclosure/Environments	17"w x 7"h x 8"d. Rack, desktop, wall mount; 0-60 deg C standard.
Communications	Access through Internet, Intranet, dial-up or wireless telephone line.
Additional Features	Notification (e-mail, pager, contact closure); remote firmware update; cross triggering, 10 msec accuracy w/optional GPS, AnswerModules, including Sag Direction, Radial Fault locator, Capacitor Switching Transient w/Directivity, Energy Usage and Expense Reporting.
Certifications and design standards	CE, ISO9001, EMC Directive (89/366/EEC), IEC 61000-4-7, IEC 61000-4-15, EN61010-1 (1993), EN61010-1/A2.

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