



UNLEASH INSIGHT, EMBRACE INNOVATION

BETA VIB's Online Solution

Elevate your industrial reliability with Cortex by BETA VIB. Harnessing real-time precision and scalable architecture, Cortex ensures seamless monitoring, early anomaly detection, and robust security for uninterrupted operations.

ONLINE SOLUTIONS



+1 305-591-8935

info@ludeca.com

www.ludeca.com

+1 514-788-3630

sales@betavib.com

www.betavib.com

Unleashing Precision
Powering Reliability



OUR COMPANY SERVICES AND PROJECTS

OUR MISSION

BETA VIB's advanced online monitoring optimizes performance, minimizes downtime, and boosts productivity – a field-proven success.

Embracing Industry 4.0, we can provide real-time analysis, predictive maintenance, and seamless integration.

Trust BETA VIB to elevate reliability standards and shape the future of industrial monitoring.

ADVANCING INDUSTRY WITH BETA VIB A FOCUS ON RELIABILITY 4.0

At BETA VIB, our dedication lies in revolutionizing industrial asset management through cutting-edge vibration-based technologies, with a strong emphasis on Reliability 4.0. We commit to providing unparalleled insights into asset health, empowering proactive maintenance strategies, and ensuring maximum uptime.

Unparalleled Accuracy

BETA VIB's solutions provide precise and reliable vibration analysis data, leading to early fault detection and reduced downtime.

Proactive Maintenance

Our customers appreciate the ability to implement predictive maintenance strategies, optimizing asset performance and minimizing unexpected downtime.

Tailored Solutions

We cater our products to meet the specific needs of each customer, ensuring a customized and efficient monitoring approach.

Seamless Integration

BETA VIB's solutions seamlessly integrate into existing industrial systems, simplifying implementation and reducing operational disruptions.

Expert Support

Our dedicated team of experts provides ongoing support, assisting customers in maximizing the value of our solutions.

Cost-Effective

Our customers testify to the cost-effectiveness of our offerings, as they lead to substantial savings in maintenance and operational expenses.

TRUSTED BY CLIENTS



ONLINE SOLUTION

STRONG FOUNDATION,
SMART COMMUNICATION

Choosing BETAVIB and our Cortex Solution for Online Monitoring means embracing Reliability 4.0 and embarking on a transformative journey towards enhanced asset performance, reduced downtime, and improved productivity. With our unmatched expertise and dedication to excellence, we are confident in our ability to provide you with a game-changing solution that exceeds expectations.



Real-time Vibration Analysis

Cortex employs advanced sensors and data acquisition technology to provide real-time vibration analysis data at the right sampling frequencies with the right specs, ensuring prompt detection of anomalies and potential failures.



Automated Reporting and Alerts:

Receive comprehensive reports you can share on any level of your organization, and instant alerts when deviations or critical thresholds are crossed, empowering your maintenance team to respond swiftly to potential issues.



Data Security and Privacy:

We prioritize the security and privacy of your data, employing robust encryption measures and adhering to industry best practices to safeguard sensitive information.



Compatibility and Interoperability:

Cortex ensures smooth compatibility with existing infrastructure and supports integration with various industrial systems, enabling a hassle-free implementation process.



Expert Support and Training:

The commitment to excellence and continuous improvement within our software support team is reflected in the consistently positive feedback and testimonials from our satisfied clients worldwide.



User-Friendly Interface:

Our intuitive interface makes it easy for operators and maintenance personnel to interact with the system, streamlining data interpretation and decision-making processes.

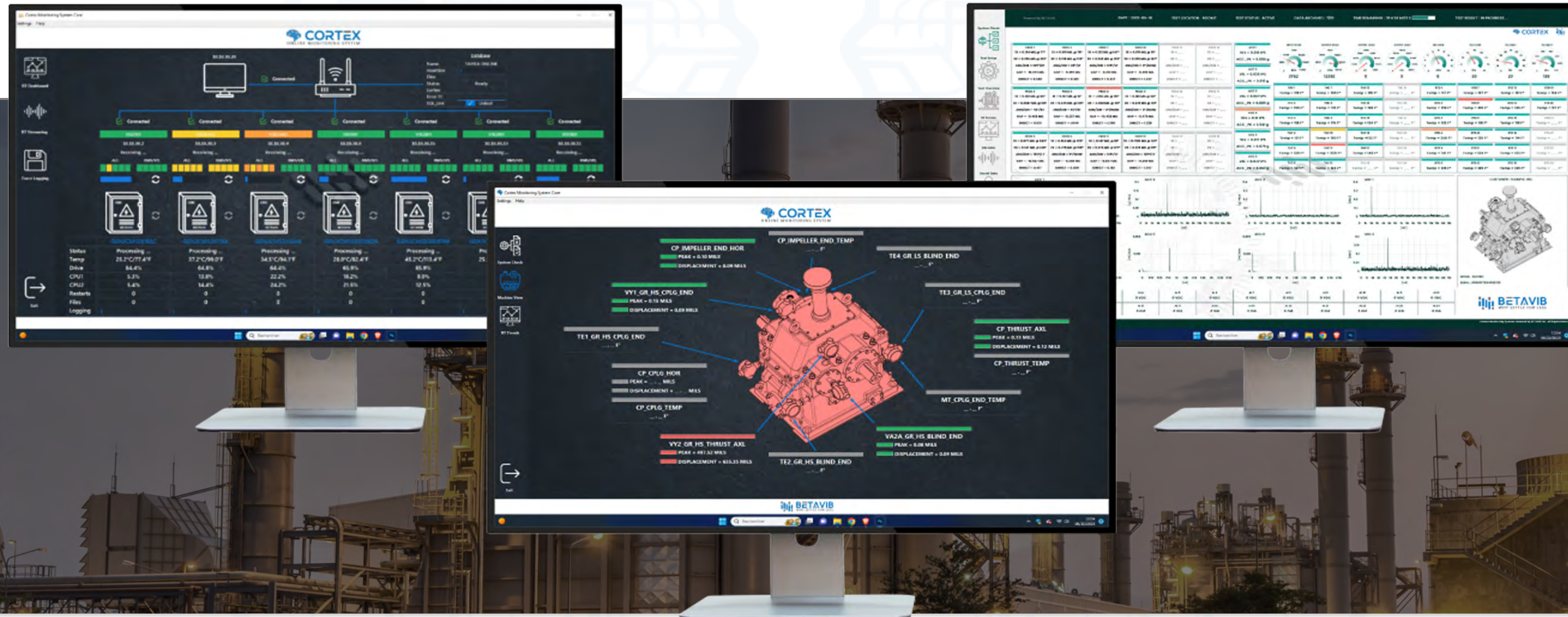


Scalable Architecture:

The Cortex Solution is designed to accommodate the growing needs of your industrial setup, allowing seamless integration with new assets, and expanding monitoring capabilities as your business evolves.

TWO CORTEX

BECAUSE EACH APPLICATION IS DIFFERENT



CMS-Ox16 / CMS-Ox32

Standard, off the shelf permanent monitoring solution allowing multiplexed measurements from accelerometers and proximity probes.

Vibration is routed in real time to dynamic dashboard from the sensors and local signal processing is performed to insure proper and safe operating conditions.

A real time assets viewer will help locate the status of each monitored point. Recording can be triggered with programmable timers, and/or with RPM counters (2 counters available).

8 output voltage channels are available to share valuable information like alarm crossing/network malfunction... with other systems

CMS-OC

High-end online monitoring solution allowing simultaneous measurements from ANY kind of sensor (vibration, voltage, current temperature, pressure, prox, 4-20mA sensors...).

Cortex Monitoring System OC is a custom built solution that will fit exactly your application: exact number of sensors, trigger handling, recording parameters, communications, environment...

No matter how complex your application is (parameters, channel count, variable operating speed & load), we can monitor the dynamic signature of your assets and also relate their behavior to the process variables.

DYNAMIC HEART, SMOOTH INTERFACE

At BETAVIB, we recognize that achieving optimal results in condition monitoring requires a holistic approach. It is not solely about the quantity of data gathered, but the utilization of the right expertise to interpret and contextualize that data.

Our team of domain experts collaborates closely with your personnel to tailor our solutions to your specific industry and asset types, ensuring that the collected data is aligned with your operational goals.

This customized approach further enhances the accuracy and relevance of the insights provided by our systems, empowering you to take pre-emptive action and avoid potential failures. Incorporating Reliability 4.0 principles, our solutions revolutionize the way you approach industrial condition monitoring.

By focusing on meaningful data collection, leveraging cutting-edge signal processing, and leveraging our expertise, we enable you to stay ahead of the curve, anticipating issues before they escalate. With BETAVIB by your side, you can rest assured that your assets are in capable hands, and your operations are fortified against avoidable downtime and false alarms, leading to increased efficiency, reduced costs, and enhanced overall productivity.



SYSTEM

Processor Capacity	667 MHz dual-core ARM Cortex-A9
Non-volatile storage	512 MB
System memory	256 MB DDR 3
Ethernet port	1 (1024MB/s rate)
Serial Ports	Yes
Hi-Speed USB Port	1 (can be used for external storage)
Architecture	Cabled/wireless (as an option)
Operating Temperature	-20°C - 55°C (Optional -40°C to 70°C)
Storage temperature	-40 °C - 85 °C
Operating Relative Humidity	10 % - 90 %
Operational Shock	50 g

ON BOARD DECISION AND SIGNAL

Filtering	Lowpass/Highpass/Inband
Number of lines	400 up to 102400 lines
Overall levels and indicators	RMS, Peak, CF, KU, Velocity
Power in bands	6 frequency bands per channel
Signal processing	Time waveforms/FFT and envelope Spectra
Analog Input Resolution	Set adaptive according to historical Data
Exceptions warning (sound or light)	Yes
Autonomous analysis-data logging	Yes (system storage or external storage)
Dynamic Range	Yes

TACHOMETER INPUTS

Inputs channels	4 tach inputs in Cortex 16 Channels CMS-Ox16 8 tach inputs in Cortex 32 Channels CMS-Ox32
Measurement type	Voltage/current

COMMUNICATION

Network Supported Protocols	Ethernet Cable: RJ45 1Gb ModBus TCP/IP Stream data from Cortex to 3rd Party PLC's Read Operating condition from 3rd Party PLC's OPC Optional and built for custom applications MQTT: Fully support and embedded for IIOT (Industrial Internet of Things)
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VIBRATION ANALOG INPUTS

Measurement Type	Accelerometer/ Proximity Probes
Sampling rate	Up to 51.2 KHz (Fmax=20 KHz)
Differential Channels	16 or 32
Coupling	AC/DC
Smart TEDS sensor compatibility	Yes
Analog Input Resolution	24 bits
Maximum Voltage Range	5 V ±
Excitation Current (IEPE)	2 mA/ 4 mA
Dynamic Range	102 dB
Maximum Bandwidth	23.04 KHZ
Input Impedance	305 K Ohm
Signal conditioning	Anti-aliasing filter current excitation

POWER REQUIREMENTS

Voltage input range	110/120/220/230 VAC
Maximum power input	18 W

VOLTAGE DIGITAL OUTPUT

Output channels	4 (8/16/32 as an option in CMS-Ox16) 8 (16/32 as an option in CMS-Ox32)
Output type	Digital
Logic level	24 VDC
Isolation level	Ch-Earth Ground Isolation
Output type	Sourcing
Current drive single	0.75A
Current drive all	6A
Switch duration	100 us (1 us as an option)

HUMAN-INTERFACE (HMI)

Real time Dash Board	Yes
Custom System Overview	Yes
Long time raw data display	Yes
Real Time Analyzer	Yes

VOLTAGE ANALOG INPUT

Inputs channels	4/8
Measurement type	Current
Range	± 10 V