



Enhancing Power Quality Monitoring and Management

With QSense, we are powering a sustainable future through innovation, efficiency, and unwavering reliability, **monitoring watt matters most**. Together, we can transform energy management, **one watt at a time**.



WHITEPAPER

IN TODAY'S ENERGY-INTENSIVE WORLD, MAINTAINING OPTIMAL POWER QUALITY IS CRUCIAL FOR ENSURING OPERATIONAL EFFICIENCY AND MINIMISING COSTS.

Poor power quality can lead to equipment failures, increased maintenance costs, and operational disruptions. QSense, developed by Infinix, is a state-of-the-art power quality monitoring solution designed to provide real-time insights and proactive management of power quality issues.

This whitepaper explores how QSense can help businesses enhance power quality, reduce costs, and improve overall operational performance.

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**MONITOR
WATT
MATTERS
MOST**

THE IMPORTANCE OF POWER QUALITY MONITORING

- FINANCIAL
- OPERATIONAL
- EQUIPMENT
- REGULATORY

KEY CHALLENGES:

- **Equipment Failures:** Voltage sags, surges, and harmonic distortions can cause premature equipment failure.
- **Increased Maintenance Costs:** Poor power quality increases the need for frequent maintenance and replacements.
- **Operational Downtime:** Power quality issues can lead to unplanned downtime, affecting productivity and profitability.
- **Regulatory Compliance:** Businesses must adhere to power quality standards to avoid penalties and ensure safe operations.

QSense is a compact, advanced power quality monitor designed to provide detailed insights into power quality parameters.

Key Features:

- **Granular Monitoring:** Tracks power quality parameters such as voltage, current, harmonics, and power factor with high precision.
- **Real-Time Alerts:** Notifies users of power quality issues as they occur, allowing for immediate intervention.
- **Historical Data Recording:** Stores historical data for trend analysis, reporting, and benchmarking.
- **Flexible Installation:** Can be installed at various points across the electrical network to ensure comprehensive coverage.

HOW QSENSE WORKS:

- **Data Collection:** QSense collects data from key points across the electrical network, including main distribution boards, sub-distribution boards, and critical equipment.
- **Data Processing:** The collected data is processed in real-time, providing detailed insights into power quality parameters and identifying any anomalies.
- **Visualisation and Reporting:** QSense features a user-friendly dashboard that displays key metrics and trends. Users can generate detailed reports to analyse performance and identify areas for improvement.
- **Alerts and Notifications:** QSense offers customisable alerts that notify users of any anomalies or potential issues, enabling prompt action to mitigate risks.



BENEFITS OF USING QSENSE

- FINANCIAL
- OPERATIONAL
- ENVIRONMENTAL
- SCALABLE

Cost Savings:

- **Reduced Maintenance Costs:** Early detection of power quality issues reduces the need for frequent maintenance and extends equipment lifespan.
- **Lower Energy Bills:** Optimised power quality leads to more efficient energy usage and lower utility costs.

Operational Efficiency:

- **Improved Equipment Performance:** Ensures that equipment operates at peak efficiency, reducing the risk of failures.
- **Reduced Downtime:** Proactive power quality management prevents unexpected disruptions.

Sustainability:

- **Lower Carbon Footprint:** Efficient energy usage contributes to reduced greenhouse gas emissions.
- **Regulatory Compliance:** Helps businesses comply with power quality standards and regulations, avoiding potential fines and penalties.

Scalability and Flexibility:

- **Customisable Solutions:** QSense can be tailored to meet the specific needs of different industries and applications.
- **Scalable Architecture:** Suitable for small facilities to large industrial complexes.

QSense by Infinix is a powerful solution that enhances power quality monitoring and management. By providing granular insights, real-time alerts, and comprehensive reporting, QSense helps businesses maintain optimal power quality, reduce costs, and improve operational efficiency. As businesses face increasing energy challenges, QSense offers a comprehensive solution to improve power quality and ensure reliable operations.

DATA CENTRE IMPLEMENTATION & CASE STUDY

● CHALLENGE

● SOLUTION

● RESULTS

CASE STUDY 1:

LOCATION: DATA CENTRE**CHALLENGE:**

Frequent voltage sags and harmonic distortion leading to equipment failures and increased maintenance costs.

SOLUTION:

Implemented QSense for real-time power quality monitoring and alerts.

RESULTS:

Reduced equipment failures by 30%, decreased maintenance costs by 25%, and improved overall power quality.

IMPLEMENTATION PROCESS

- **Assessment:** Conduct a thorough site assessment to identify power quality issues and establish baselines.
- **Installation:** Install QSense devices at strategic locations to ensure comprehensive coverage and optimal performance.
- **Configuration:** Configure the QSense system to tailor it to the specific needs of the facility, including setting up alerts and reporting parameters.
- **Training and Support:** Provide training to facility managers and staff to ensure they can effectively use QSense. Offer ongoing support and maintenance to ensure optimal performance of the system.

MANUFACTURING FACILITY IMPLEMENTATION & CASE STUDY

● CHALLENGE

● SOLUTION

● RESULTS

CASE STUDY 2:

MANUFACTURING FACILITY IN DIBBA, UNITED ARAB EMIRATES**CHALLENGE:**

Unplanned downtime due to power quality issues, affecting productivity and profitability.

SOLUTION:

Deployed QSense to monitor power quality parameters and provide real-time alerts.

RESULTS:

Reduced downtime by 40%, increased productivity, and enhanced operational efficiency.



For more information, visit [Infinix's website](#) or contact our sales team at info@infinixenergy.com.

