

508^{XT}

POWERED BY X-TECH[®]

THE NEW PARADIGM
IN LAND SEISMIC ACQUISITION

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508^{XT} is Sercel's industry leading cross-technology (X-Tech) powered land seismic acquisition system, driving productivity, data quality and adaptability to a new level.

With a 1 million channel real-time recording capability 508^{XT} offers unparalleled image resolution. The 508^{XT} platform also can be equipped with QuietSeis[®] high performance, 3rd generation, digital MEMS sensors. These allow seismic signals to be recorded with negligible data jitter and instrument noise levels three times lower than was possible before. Sensor distortion is also greatly reduced and significant benefit for high production surveys using blended acquisition techniques.

The 508^{XT}'s X-Tech architecture is composed of XT-nodes that can consist of as few as 1 or up to as many as 100 or more analog or digital channels connected to a CX-508 concentrator. This X-Tech architecture combines the best of cabled and wireless system technologies by allowing segments to be run autonomously with local storage and system QC or connected to the spread with full real-time data transmission to the central recorder.

With a reduced weight and up to 100 times less batteries than competing systems, 508^{XT} increases productivity and significantly reduces acquisition costs.



CX-508



FDU-508

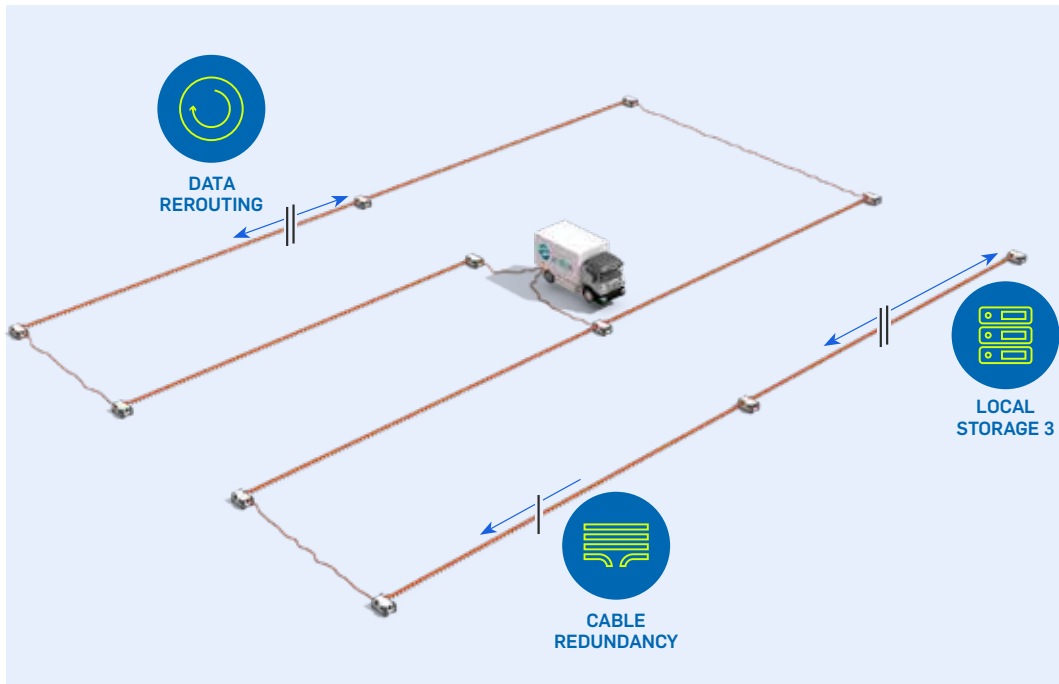


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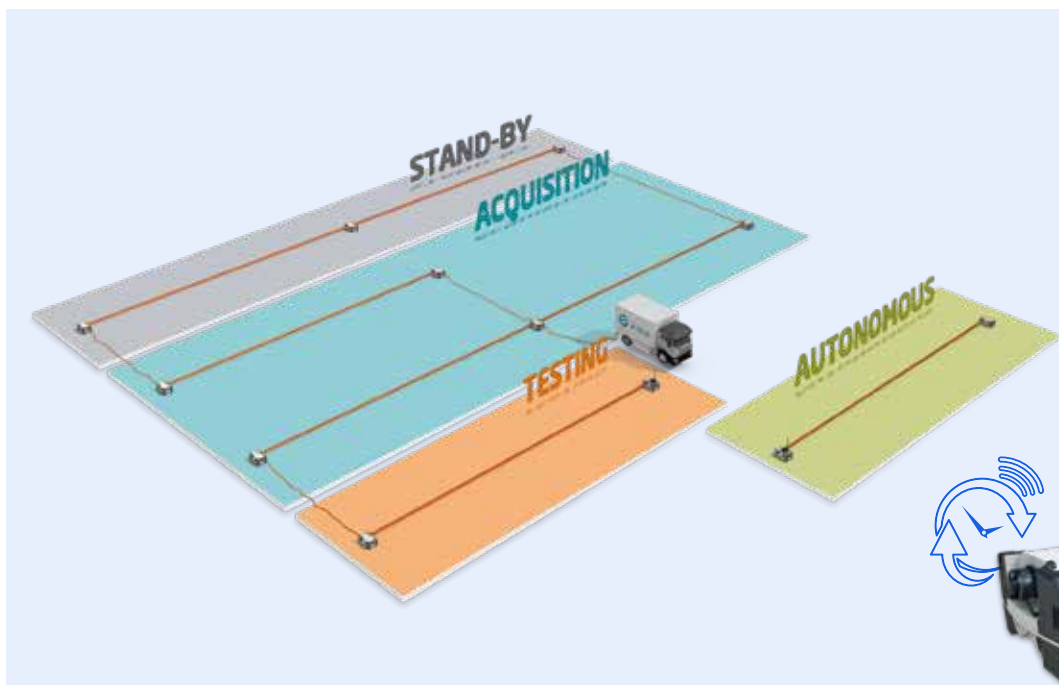
FEATURES & BENEFITS

HIGH PRODUCTIVITY



FAULT-TOLERANT ARCHITECTURE

The X-Tech architecture allows all data handling elements to communicate with each other to transmit data seamlessly, at high speeds and without interruption. 508^{XT} ensures non-stop production by featuring local data storage, automatic rerouting, and multiple levels of transmission redundancy.



MULTI-TASK OPERATIONS

Thanks to the X-Tech intelligent network, 508^{XT} allows troubleshooting and testing of the line to be carried out during production to minimize downtime. In addition, the programmable wake-up feature and the low-power mode for standby units guarantee your spread is ready for shooting when required.

PROGRAMMABLE WAKE UP

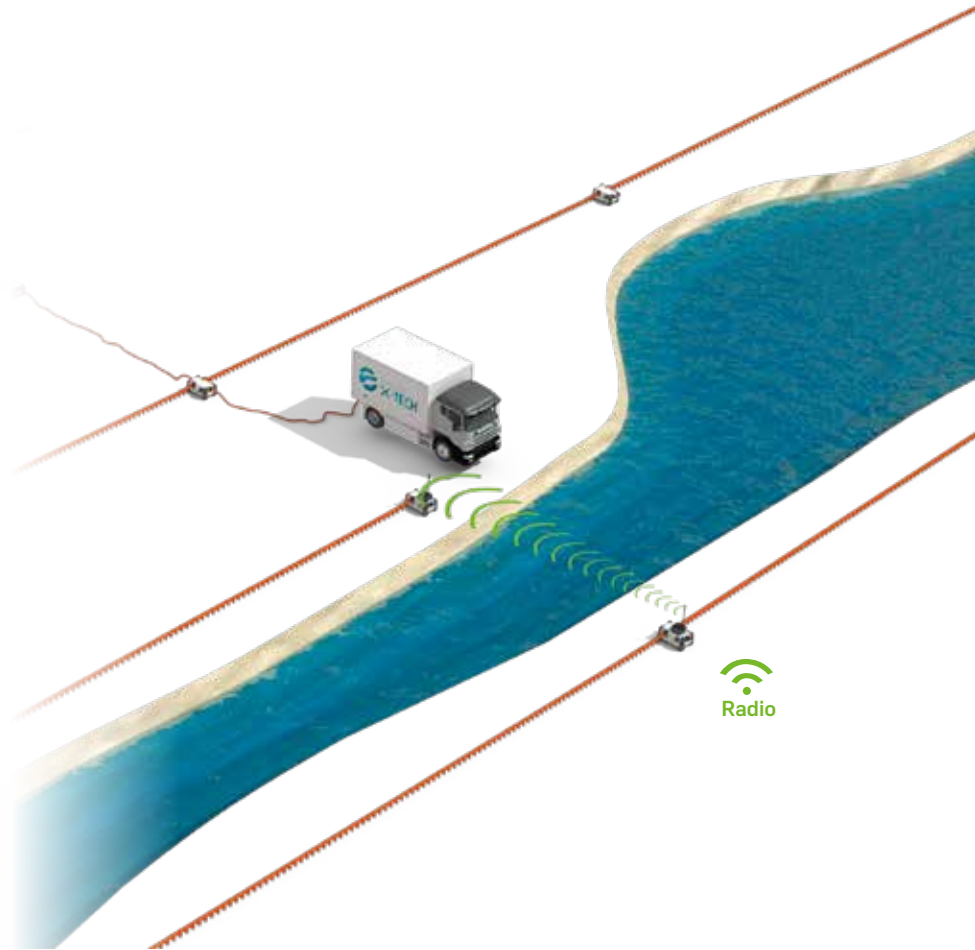
DATA SECURITY

100% QUALITY CONTROL

508^{XT} ensures continuous realtime system QC (Battery Status, GPS, Memory...), whether through the line or via 2.4GHz radio communication.

FAST DATA DELIVERY

508^{XT} guarantees fast data delivery by featuring a high speed line network and advanced harvesting capabilities on autonomous segments.



COMPLETE ADAPTABILITY

For any survey size, any source and sensor type, any conditions and any terrain, 508^{XT} will meet your needs in a single versatile system.

The core of the X-Tech architecture is an autonomous nodal system allowing maximum flexibility.



TRANSITION ZONE

DESERT

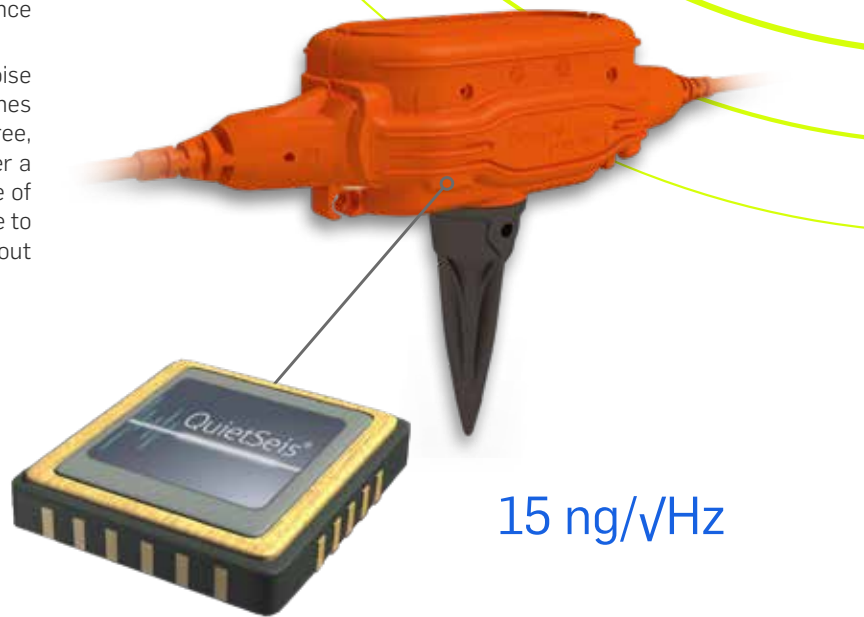
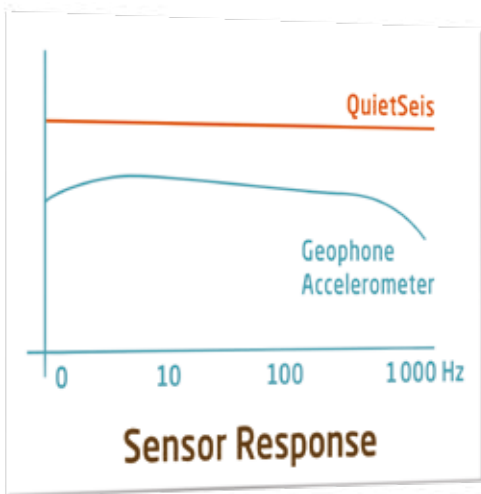
ARCTIC

FARMLAND

BEST DATA QUALITY

QuietSeis is the industry's only 3rd generation high performance digital sensor based on next-generation MEMS.

With a noise floor as low as 15ng/√Hz and below the ambient noise in any part of the world, it can record seismic signals three times lower than previous generations. This broadband, data jitter free, sensor offers a linear & flat amplitude and phase response over a large bandwidth (from DC to 800Hz), superior to any other type of sensor. It is fully calibrated with respect to gravity and insensitive to electromagnetic (power-line) pick-up. Its distortion (-90dB) is about 30dB less than single geophone based sensors.



15 ng/√Hz

Fully integrated with the 508^{XT}, which offers mega-crews the ability to record up to one million channels in real time, QuietSeis provides the most accurate data for any type of survey.

OPTIMIZED FOR HSE & SD

By reducing the human and carbon footprint through better built-in fault tolerance, lower power consumption and optimized system weight, we are staying true to our fundamental values by delivering an innovative high-quality system that is both sustainable and safe.

REDUCED CARBON FOOTPRINT

- Lighter system.
- Lower power consumption.



RECYCLING

- Up to 100 times less batteries to recycle.
- RoHS Lead free electronics.

OPPORTUNISTIC TROUBLESHOOTING

Ability to postpone any repairs to when it best fits your schedule.

FIELD CONFIGURATIONS



AUTONOMOUS



TRANSITION ZONE



RECORDER

STANDARD

Feature filled configuration to meet all your survey needs

Integrates several ultra-wide screens for the ultimate in project supervision and operator experience. Includes a full source control suite for the most simple to the most complex vibroseis strategies.

Unsurpassed real-time QC tools, including QC Analyzer, provide "System Certified Data" output. Total control for maximum survey productivity.



LITE

The most compact & light solution

Designed for impulsive surveys up to 3,000 live channels, the Lite configuration is compact and enables operations to be controlled using a single laptop.

This configuration brings the benefits of 508^{XT} real-time X-Tech to portable operations in even the most inhospitable environments."



SOFTWARE

508^{XT}

Operational Control & Monitoring

508^{XT} has the most advanced and comprehensive seismic acquisition software available resulting from an unequalled knowledge base built up over Sercel's long history. Facilitating full real-time control and monitoring of all operations from the recording truck, the software package controls and monitors:

- Sources: From impulsive to the most advanced multi-fleet vibroseis techniques
- Receivers: Real-time monitoring of all the system components
- Seismic data: From field noise monitoring to advanced data Quality Control

Certified data is output in SEG-D file format and stored on RAID storage devices ready for delivery to the client.



Quality Control Analyzer

Featuring a new user-friendly graphical interface with real-time or standalone modes, QC Analyzer is delivered by default with 508^{XT} software suite to perform detailed signal analysis. The software supports a wide range of user selectable graphical displays (amplitude, spectrum, distortion, phase,...) and is compatible with the latest SEG-D Rev3.0.



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