

- LAND
- ↓ DOWNHOLE
- ~ SEABED
- ≡ MARINE



428XL

Land seismic acquisition system



Ahead of the CurveSM

428XL



FDU-428

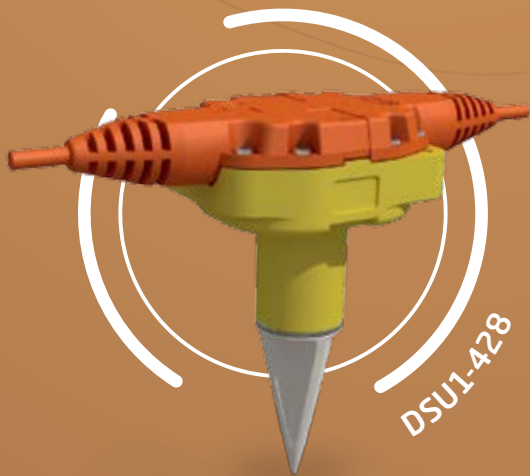


// 428XL

428XL is the most popular land seismic acquisition system with a proven performance and reliability.

Extremely versatile, it can integrate any sensor type (analog or digital, 1-C or 3-C) and can be used in all survey conditions (arctic, desert, marsh zone...).

Leading the market, the 428XL is the system of reference in the industry.



DSU1-428



DSU3-428

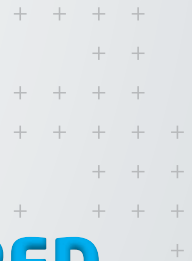
Features & Benefits

// BEST OWNERSHIP VALUE

Benefiting from a very long and vast field experience with more than 5.000.000 channels delivered, 428XL is the reference acquisition system of the industry. Owners of the 428XL will accrue this benefit in the form of a five-year warranty on 428XL Line electronics, the longest in the industry. In case there should ever be a problem with field electronics, Sercel has revamped its customer service to replace covered equipment with a standard exchange instead of repairing any individual piece of equipment. Our customers will have more of their equipment working for them a greater percentage of the time than owners of any other systems.

5-YEAR WARRANTY

5.000.000 CHANNELS DELIVERED



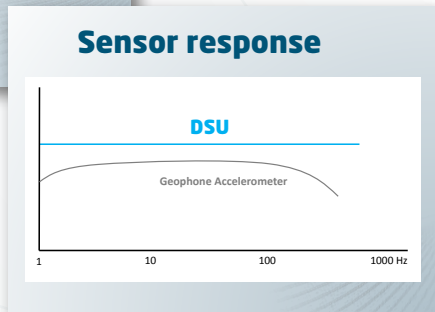
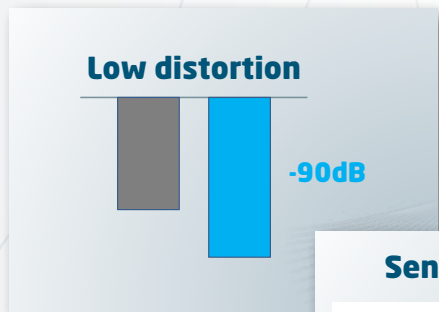
// COMPATIBLE WITH UNITE

The UNITE cable-free system can now integrate with the Sercel 428XL to act as a single system in some of the toughest environments in the world. UNITE boxes can be linked directly to the 428XL cable network in order to send data and conduct QC in real time. In autonomous mode, harvested data can also be sent directly into the 428XL line enabling immediate data reception by the recording truck.

This unique product compatibility allows the use of a mix of cable and cable-free systems, opening up exciting new possibilities.



// FULL RANGE OF SENSORS



// **BROADBAND IMAGING**
Linear response 0-800Hz

// **EXCELLENT VECTOR FIDELITY**

// **LOW DISTORSION**
-90dB

DSU1: 1-C Digital Sensor

The DSU1 is a MEMS based digital sensor that receives seismic data in one component⁽¹⁾. The use of digital single sensors offers many advantages compared to an array of conventional phones. Single sensors avoid intra-array statics and with broadband linear response (DC to 800 Hz) and low distortion can provide the highest resolution data available. The small package of the sensor and low power requirements result in a very light weight solution compared with analog phones.

⁽¹⁾ patents US 7,797,998 & US 7,552,638



DSU3: 3-C Digital Sensor

The DSU3 is an integrated package made up of station electronics and three digital accelerometers based on MEMS (Micro-machined Electro-Mechanical Sensor) technology with low power consumption and full functionality at any tilt angle. The DSU has proven to be high-performance, power-efficient and reliable in all operations. The DSU3 digitizes data from a single ground station and its three orthogonal components allow it to accurately record the ground motion on all three axes. This is a significant improvement over traditional analog P-wave geophones that only record the vertical component. Utilization of the full seismic wave field, when accurately recorded and processed, enhances the seismic interpretation and reservoir characterization to help reduce F & D costs.



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// HIGH SPEED BACKBONE

// HIGHER PRODUCTIVITY

Up to 100,000 channels @ 2ms

// HIGHER TRANSMISSION RATE

Optical data transmission @ 1 Gb/s

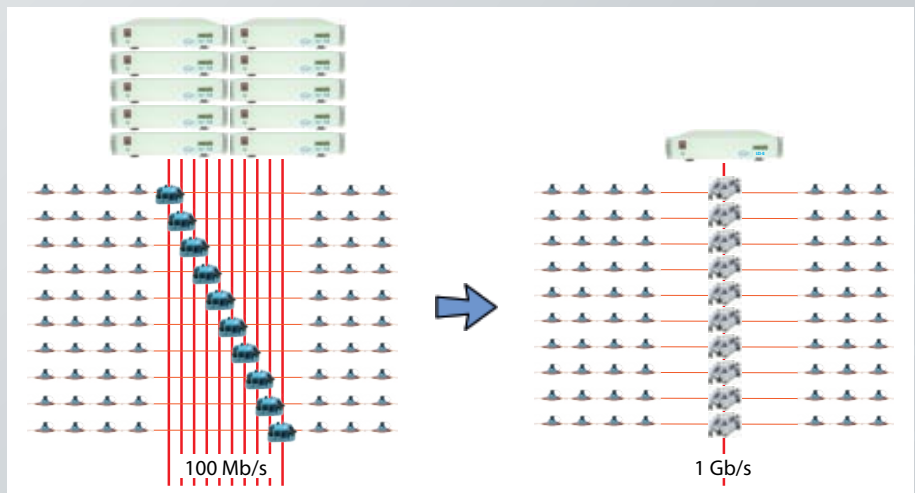
// SIMPLIFIED DEPLOYMENT

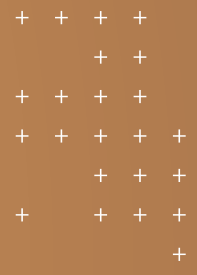
Less transverse cable in the field



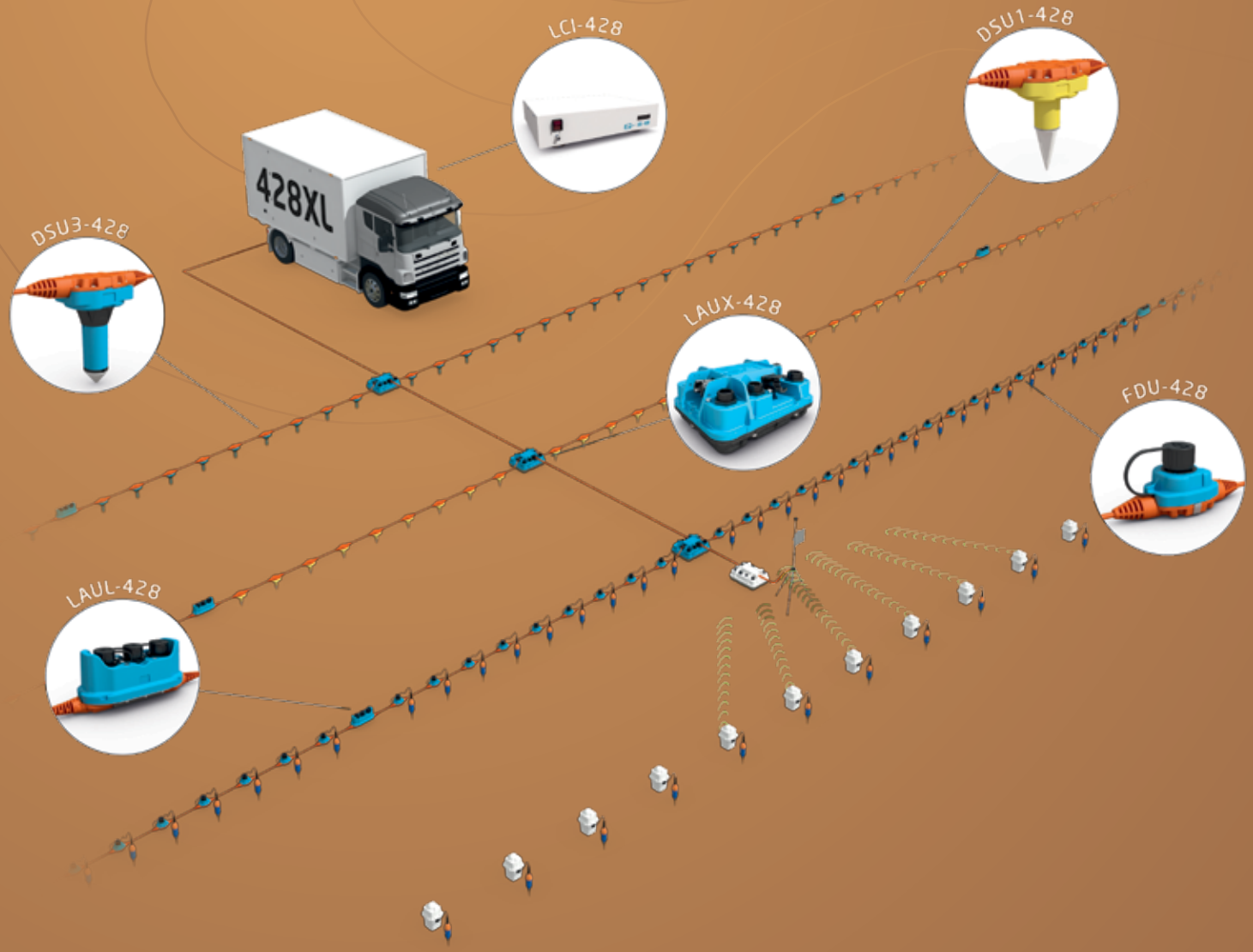
A new range of equipment is now available for the 428XL system increasing the data transmission rate on the transverse from 100Mb/s to 1Gb/s. The capacity of this new transverse is thus also upgraded from 10,000 channels to 100,000 channels @ 2 ms in real time.

For mega crews, the number of transverses and LCI will be divided by up to 10, simplifying the deployment and the recorder moves.





Equipment



FDU-428

- 1-C Field Digitizing Unit
- Compatible with any geophone type



DSU1-428

- 1-C Digital Sensor Unit



DSU3-428

- 3-C Digital Sensor Unit



DSU3BV-428

- 3-C Digital Sensor Unit
- Burried version



LAUX-428

- Line 8 transverse power



LAUL-428

- Line power



TFOI-428

- Fiber optic transverse
- 2 km max length
- 100 MB/s



LT-428

- Line tester

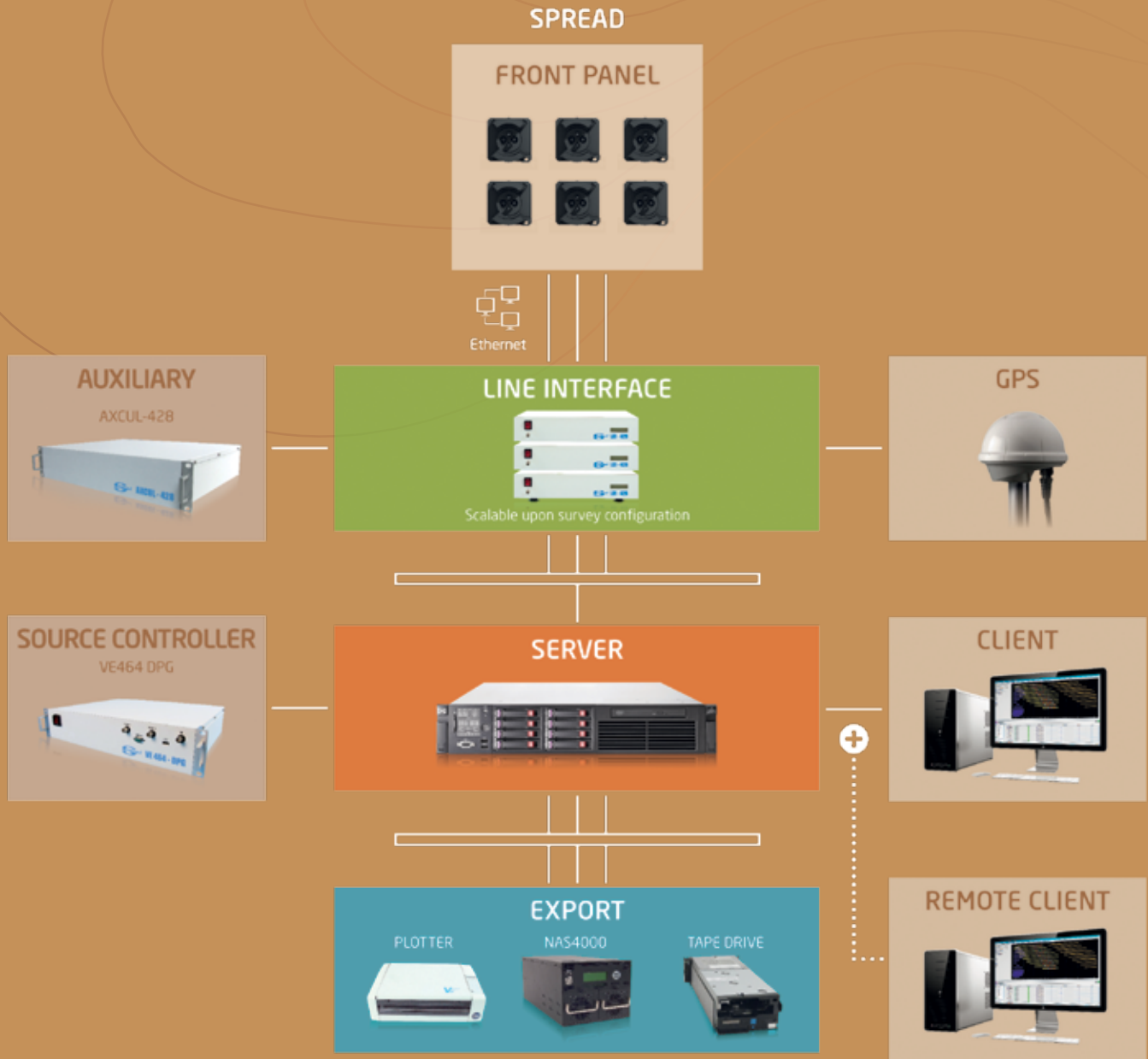
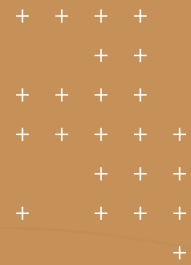


GEOPHONES

- Full Sercel range available



Recorder



LCI-428

- Line Control Interface
- Source management
- 10,000 channel max



AXCUL-428

- Auxiliary Control Unit
- 8 auxiliary channels
- Analog signal recording



CLIENT

- User Interface
- Multi-Client configurations (local & remote)



SERVER

- Red Hat Linux OS
- Seismic data retrieval
- Seismic data processing



NAS 4000

- Network Attached Storage
- Up to 2TB disk capacity
- Raid 1 Disk feature



GPS

- GPS time synchronization



VE464 DPG

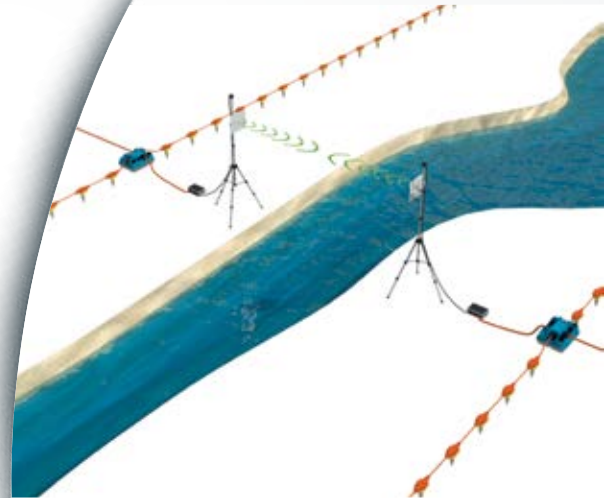
- Vibrator / Recorder interface
- Advanced vibroseis strategies



Options

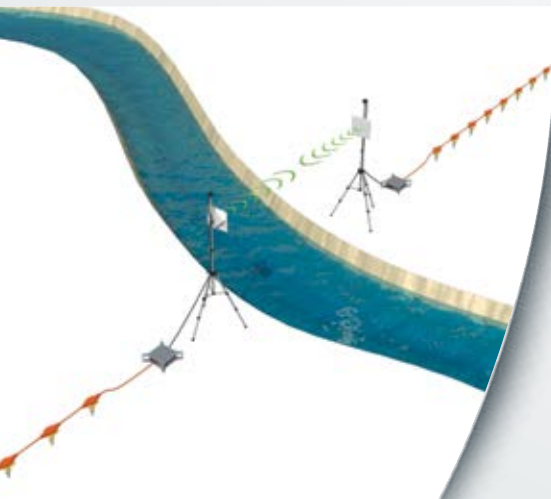
// ETHERNET RADIO BRIDGE

The Ethernet Radio Bridge is a 75 Mbps wireless datalink that can be used in place of a 428XL Transverse cable. The maximum range is typically around 3km but is also dependant on RF transmission conditions and local RF regulations.



ERB-428

LRB-428



// LINE RADIO BRIDGE

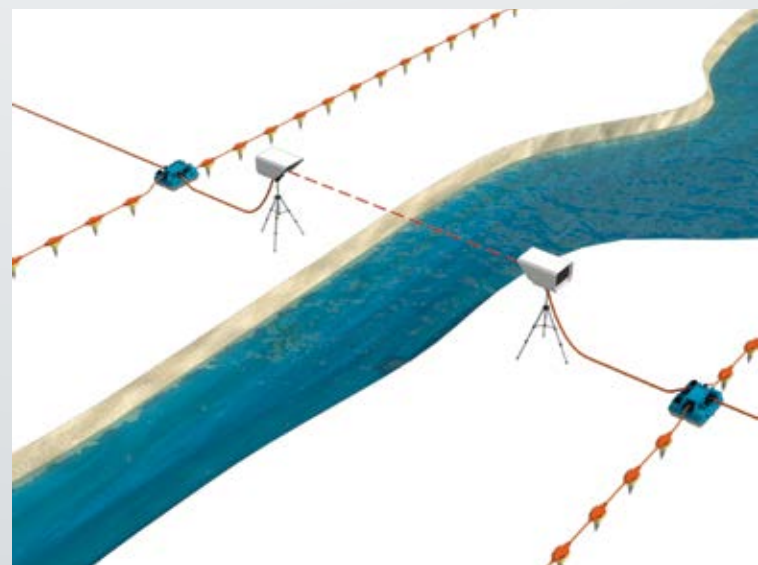
LRB-428 is a data acquisition unit and wireless data link that can be used in place of an LAUL-428 to wirelessly connect a line over obstacles or impasses, such as rivers or highways. The LRB-428 can be inserted anywhere in a spread as an element of the 428XL network to relay the data transmission on a line. The maximum range is typically around 1km but is also dependant on RF transmission conditions and local RF regulations.



LLX400

// LASER LINK

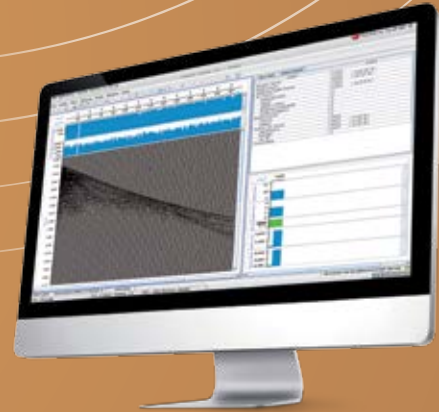
The LLX400 is a wireless bridge relying on infrared laser transceivers, therefore not requiring any frequency licensing. It can be used to relay the data from an 8 or 16 Mbps Line or a 100 Mbps transverse, across a river or a canyon for instance, over ranges from 200m to 3000m in clear conditions.



// eSQC-Pro

Quality Control Software

eSQC-Pro is a powerful integrated tool for real-time QC of seismic data acquisition without slowing down production. Its client/server architecture allows real-time QC display on a remote standard PC through a secure Internet connection.



// SGA

Signal Graphic Analyzer

SGA is the latest generation of Signal Graphic Analyzer QC Tool. Featuring a new user-friendly graphical interface and being able to work in real-time or standalone mode, SGA can be installed on any computer to perform detailed signals analysis. The software supports a wide range of graphical displays (amplitude, spectrum, distortion, phase,...) and is compatible with the latest SEG-D file revisions (rev 2.1 and 3.0).



// e-428

428XL System Software

Based on a client/server architecture it controls the spread, the operations and perform all the requested computations (stacks, correlations) before recording onto tapes or disks.





428XL

Land seismic acquisition system

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