

528™

Field Equipment

CX-528		
	CX-528	TZ CX-528
Functions	<ul style="list-style-type: none"> • GPS for line synchronization • Circular memory able to store data up to 10 days* • RFID chip for inventory purpose • 6 LEDs for fast status check • 2 power plugs for battery hot swap (12V batteries) • 1 port for connection to LRC-508 or FT-528 • 2 FM4 ports for the line • 2 transverse ports for TFOI-508 or ERB-508 connection 	
Operating voltage	10.5 - 15 V DC	
Line data rate	10 - 20 - 40 Mbps	
Maximum number of channels per line	2,400 @2 ms real-time	
Transverse data rate	1 Gbps	
Maximum number of channels per transverse	100,000 @2 ms real-time	
Power consumption	<ul style="list-style-type: none"> • Line only : 2.3 W in acquisition • With transverse : 7 W in acquisition 	
Dimensions (HxWxD)	158 x 218 x 342.4 mm (6.2 x 8.6 x 13.5 in.)	
Operating temperature	-40 °C to 70 °C (-40 °F to 158 °F)	
Operating type	Onshore	Transition Zone / Offshore
Weight (w/o battery)	3.8 kg / 8.38 lbs	11 kg / 24.25 lbs with cage
Waterproofness	Up to 15 m	Up to 25 m

(*): 10 days, 100 channels, 2ms, 12 hours/day working hours

FDU-528

	FDU-528	TZ FDU-528
Functions	<ul style="list-style-type: none"> • 24 bits A/D conversion of the signal • Filtering, compression and time stamping of the data • Transmission of the data samples to the CX-528 with CRC control • Local data storage and re-transmission if needed (e.g. statics, cut cable) • Instrument and sensor tests: <ul style="list-style-type: none"> Sensor: resistance, noise, tilt, leakage, impulse Instrument: noise, gain, phase, distortion, CMRR, pulse 	
Sample rate	4, 2, 1, 0.5 ms	
Time standard	Synchronous to GPS clock	
Input impedance differential mode	20 k Ω // 77 nF	
Full scale	1.6 V RMS (0dB), 400 mV RMS (12 dB), 100mV RMS (24dB)	
Noise (3-200 Hz)	350 nV RMS (0dB), 145 nV RMS (12 dB), 90nV RMS (24dB)	
Instant dynamic range	130 dB	
System dynamic range	148 dB	
Distortion	-110 dB	
Gain accuracy	< 0.1 %	
Phase accuracy	< 20 μ s	
Low cut filter	Selectable : (None, 0.15625 Hz, 0.3125 Hz, 0.625 Hz, 1.25 Hz, 2.5 Hz)	
High cut filter	0.8 FN linear or minimum phase	
Interval between FDU	Up to 70 m	
Power consumption	Acquisition : 70 mW / Standby : 45 mW	
Operating temperature	-40 °C to 70 °C (-40 °F to 158 °F)	
Operating type	Onshore	Transition Zone / Offshore
Weight	0.470 kg / 1.04 lbs	1.235 kg / 2.20 lbs
Dimensions (HxWxD)	86.2 x 76 x 248 mm (3.4 x 3.0 x 9.7 in.)	125 x 76 x 400 mm (4.9 x 3.0 x 15.8 in.)
Waterproofness	Up to 5 m	Up to 25 m ⁽¹⁾

(1) with specific handling care above 15 m

DSU1-508

Operating type	Onshore
Functions	<ul style="list-style-type: none">• Data filtering, compression & time stamping• Data transmission with CRC control• Acceleration measurement• Instrument tests : gain, phase, distortion• Sensor tests : noise, distortion, tilt
Sample rate	4, 2, 1, 0.5 ms
Time standard	Synchronous to GPS clock
Bandwidth	0-800 Hz
Full scale	5 m/s ²
Noise (10-200Hz)	15 ng/√Hz
System dynamic range	128 dB
Distortion	-90 dB
Gain accuracy	< 0.25 %
Phase accuracy	< 20 μs
Power consumption	Acquisition : 85 mW / Standby : 55 mW
Weight	0.485 kg / 1.07 lbs
Dimensions (HxWxD) (with spike)	176.8 x 76.4 x 248 mm (6.9 x 3.0 x 9.7 in.)
Operating temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Waterproofness	Up to 5 m

ERB-508

Functions	<ul style="list-style-type: none">• Wireless data transfer between CX-528 or CX-508• Can be used instead of a line or transverse
Transmission rate	100 Mbps
Range	<ul style="list-style-type: none">• Up to 1 km using the included tripod• Up to 15 km using a higher mast
Voltage	12 V
Power consumption	10 W on each side
Operating temperature	-40 °C/+60 °C (-40 °F/+140 °F)
Operating conditions	IP67

LRC-508

	LRC-508	TZ LRC-508
Operating type	Onshore	Offshore on a buoy
Functions	<ul style="list-style-type: none">• Wireless QC transfer between CX-528 or CX-508• QC Mesh radio network	
Transmission rate	1,2 Kbps	
Range	Up to 1 km	
Voltage	12 V	
Power consumption	<ul style="list-style-type: none">• Continuous transmission at full power: 2 W• Reception mode: 0.4 W	
Operating temperature	-40 °C to 70 °C (-40 °F to 158 °F)	
Operating conditions	IP68	

SMX-508

Functions	Multi transverse management (up to 12)
Operating voltage	110/220 VAC, 50/60 Hz
Power consumption	0.2W + 2.5W per TFOI connected
Operating temperature	0 °C to 45 °C (from 32 °F to 113 °F)
Operating conditions	Altitude < 2,000 meters
Dimensions (HxWxD)	2U 19" rackable, 88.9 x 482.6 x 400 mm (3.5 x 19 x 15.7 in.)
Weight	4.5 kg (9.92 lbs)

Peripherals

FT-528

Functions	Troubleshooting complete lines of field units (FDU-528, FDU-508 & DSU1-508)
Instrument tests	<ul style="list-style-type: none">• Noise• Gain• Phase• Distortion• Pulse• CMRR
Field Tests	<ul style="list-style-type: none">• Noise• Resistance• Tilt• Tilt model• Leakage• Impulse• Distortion
Capacity	1 line of 3000 FDU-528, FDU-508 or DSU1-508
Operating temperature	-20 °C/+50 °C (-4 °F/+122 °F)
Operating conditions	IP65

Channel capacity between CX-528

Distance between RPs	FDU-528	FDU-508	DSU1-508
13.75 m / 45 ft	120	96	106
27.5 m / 90 ft	100	80	92
55 m / 180 ft	80	64	74
70 m / 230 ft	74	60	68

Line cable

	Land cable	TZ cable
Operation type	Onshore	Transition Zone / Offshore
Maximum length	–	–
Weight	43 kg/km	83 kg/km
Breaking strength bulk cable	150 daN	350 daN
Breaking strength with connectors	120 daN	300 daN
Waterproofness	Up to 5 m	Up to 25 m ⁽¹⁾

Transverse cable

	TFOI-508	TZ TFOI-508
Operation type	Onshore	Transition Zone / Offshore
Maximum length	2 km	2 km
Weight	45 kg/km	140 kg/km ⁽²⁾
Breaking strength bulk cable	300 daN	300 daN
Breaking strength with connectors	170 daN	300 daN ⁽²⁾
Waterproofness	Up to 15 m	Up to 25 m ⁽¹⁾

(1) with specific handling care above 15 m

(2) with stainless steel cable

Energy Packs

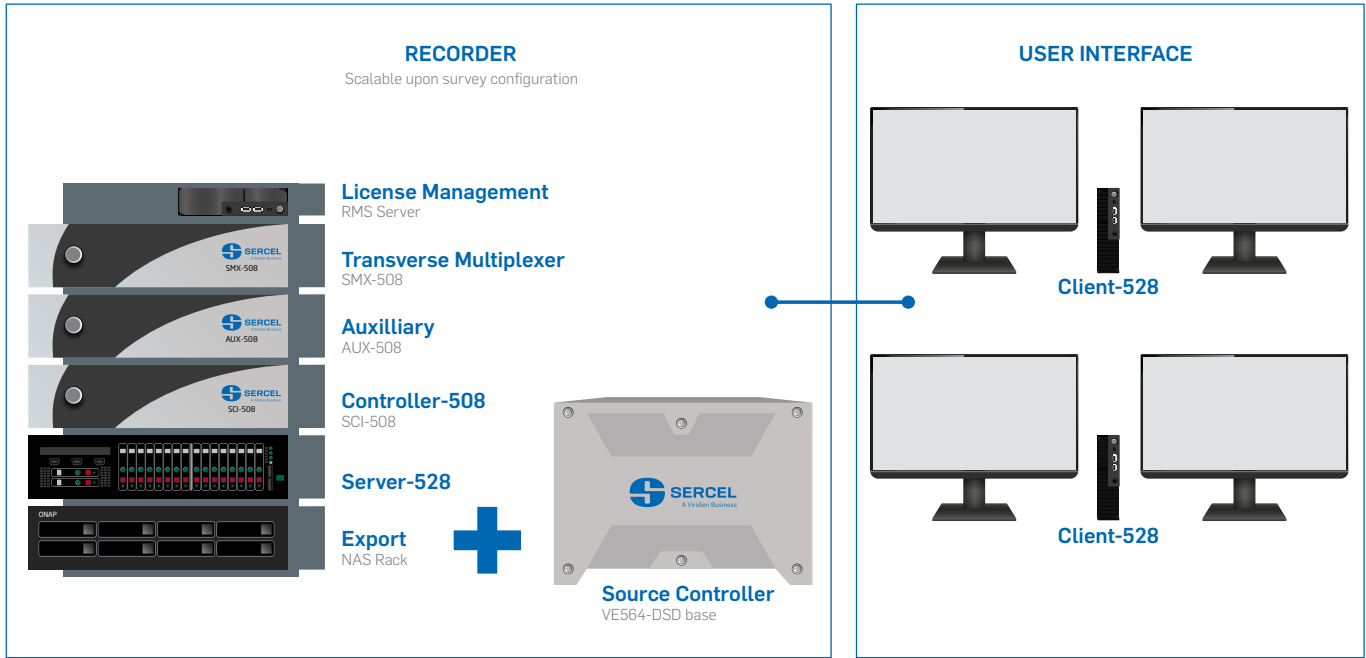
	TZ Energy Pack 182AH	TZ Energy Pack 364AH
Energy	2640 Wh	5320 Wh
Capacity	182 Ah	364 Ah
Nominal voltage	14,6 V	14,6 V
Max. intensity for charge and discharge	20 A	20 A
Typical duration for complete charging	10 hours	20 hours
Dimensions	355 x 255 x 180 mm	355 x 405 x 180 mm
Weight (in air)	28 kg	49 kg
Weight (in water)	14 kg	26 kg

Central Unit

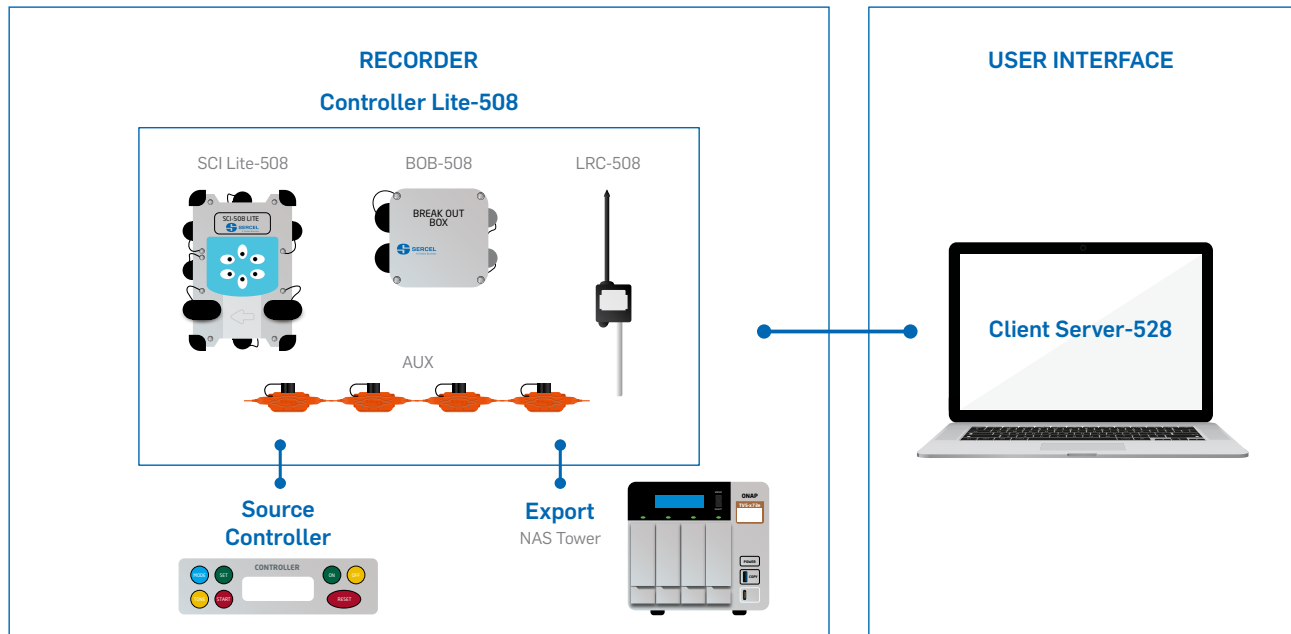
	SCI-508	SCI LITE-508
Functions	<ul style="list-style-type: none"> • Shooting system management • Aux channels recording • GPS synchronisation • Network management 	
Operating voltage	110/220 VAC, 50/60 Hz	10.5V – 15V
Power consumption	10 W	5 W with a single transverse
Operating temperature	0 °C to 45 °C (32 °F to 113 °F)	-40°C to 70 °C (-40 °F to 158 °F)
Operating conditions	Altitude < 2,000 meters	-
Dimensions (HxWxD)	2U 19" rackable, 88.9 x 482.6 x 400 mm (3.5 x 19 x 15.7 in.)	158 x 218 x 342.4 mm (6.2 x 8.6 x 13.5 in.)
Weight	4 kg (8.82 lbs)	

Note: Sercel reserves the right to change its specifications without prior notice.
All specifications are typical at 25 °C

System architecture 528



System architecture 528 Lite



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