



## e-QUAKE-DIGI 24-BIT SEISMIC DIGITIZER

e-QUAKE Series has been designed with a state of art technological approach. This series contains Seismic Digitizers, Seismometers, Strong Ground Motion Recorders and Broadband Sensors at a dynamic range up to 140 dB and with a resolution of 24 Bits.

Seismic Digitizers (e-QUAKE-DIGI) have 2 different versions including 3 and 6 channels. E-QUAKE DIGI is compatible with all seismic sensor types including force balanced accelerometer (FBA), velocity sensors, broadband weak motion sensors.

Whereas 3 component Force Balanced Accelerometer, Broadband and Short Period seismometers could directly connect to 3 channel version, the 6 channel version is an ideal solution for hybrid type measurements which contain both accelerometer and broadband band sensors (Accelerometer + seismometer)

### AREAS OF USE

Seismic Strong and Weak Ground Motion Monitoring Networks

Geophysical Research

Micro Tremor Measurements

Geological Researches / Mining/ Oil

Ocean Bottom Researches

Structural Health Monitoring / Ambient Vibration

Factory Vibration Measurements

### TECHNICAL SPECIFICATIONS

	e-QUAKE-DIGI-3	e-QUAKE-DIGI-6
ADC Resolution	24 Bit	
Synchronization	GPS based simultaneous sampling - independent ADC/ channel	
Sampling Speed	1 kHz, 500 Hz, 200 Hz, 100 Hz, 50 Hz, 20Hz, 10 Hz, 5Hz, 1Hz (2kHz/4kHz optional)	
Sensor Compatibility	Seismometers, broadband - short period seismic sensors, force-balanced accelerometers (FBA) - (Force feedback) Force Feedback Accelerometers, MEMS/Servo	
Dynamic Range / Noise Level	140 dB / 1.2 micro-Volt RMS	
Input Range	±12 Volt	
Analog Input Channels	3 Sensor components 1 AUX / Temperature	6 Sensor Components 1 AUX 1 Temperature
Input Signal Type	Differential (Best Performance) / Single Ended	
Warning	Voltage - temperature - GPS - RAM status/ automatic - sinus - square - user defined	
Sensor Excitation	+5V, +12V, -12V (Standard)	
Analog Filter	Anti-aliasing / low pass	
DSP	Oversampling / downsampling / decimation / digital filtering	
Operating System	Dual ARM processor-embedded linux-real time calculation features	
Communication Interface	Ethernet TCP/IP-ADSL-3G connection ready - data loss preventing transfer algorithm / RS232-optional	
Data Storage	USB - flash memory (4GB - 8GB - 16 GB)/ Record triggering/ STA/LTA/Other	
GPS Resolution	< 1µ second	
GPS Functionality	Time - coordinate info, uninterrupted internal oscillator signal when GPS signal is lost	
Remote Connection	TCP/IP - FTP Server - seedlink server* - web server	
Lightning Protection	Independent protection for each channel	
Operating Voltage	12 VDC / 220V AC	
Operating Temperature	-40 °C ~ +70 °C	
Enclosure / Connector	Shock-Proof Mobile Casing(NATO Cage Code A7423)-(optional enclosure alternatives)/Connector IP67 (optional military grade)	

\*It is possible to add compatibility for other common transfer methods upon user request



e-QUAKE-DIGI  
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# e-QUAKE-DICI

24-BIT SEISMIC DIGITIZER



24 Bit ADC

3/6 Channel  
Versions

1.2 Micro-volt  
RMS Noise

Direct GPS  
Technology

Compatible  
with All Seismic  
Sensors

Dual-ARM  
Processor

Embedded  
Linux

EASY-REC  
Recording  
Technology

Easy Access  
over Ethernet-  
TCP/IP

High Capacity  
USB External  
Storage

New and  
Innovative  
Technological  
Design Platform

High Benefit/  
Cost Rate

Robust and  
Portable Design

Shock-Proof  
Enclosure