

**SMARTSOLO®**

World's First Smart Seismic Sensor

**IGU-BD3C-5**













## IGU-BD3C-5 Features

IGU-BD3C-5 is a low-cost, broadband, and micro power consumption broadband smart seismic sensor. Based on the high-sensitivity geophone DT-SOLO—proudly produced by DTCC, and incorporated with electronics and software technologies in mobile internet era. With internationally well-received and reliable electronic spread spectrum technology, the frequency band range of IGU-BD3C-5 is up to 0.2Hz-150Hz. Due to its high reliability and high level of customization of storage and power capacity, it is very suitable not only for traditional active seismic exploration, but also for long-period observation of natural microseismic, transient surface wave survey and mobile station natural earthquake monitoring, etc.



Patent Publication Number 20202105852.9  
Patent Pending Number 202010513761.2

-  New Generation 3 components Smart Seismic Sensor
-  Low frequency can reach to 5s
-  Internal battery support up to 30 days of continuous recording (see Technical specs for details)
-  Support for external power supply and Bluetooth QC
-  Built-in GPS receiver and time-disciplined high precision clock
-  High resolution data with up to 0.25ms sampling and 24-bit delta-sigma ADC
-  Real-time seismic data monitoring and sensor status QC
-  Internal 32GB memory Can be expanded to 64GB
-  Dual LED for status QC Indicate Bluetooth, battery level and working status.
-  Compatible with vibroseis and impulsive energy sources

## DT-SOLO® The Heart of SmartSolo

High-quality seismic data derives from high-quality seismic sensors. DT-SOLO is a high-sensitivity geophone specially designed for Nodal acquisition system. It is well-known in seismic industry as a top-quality high-sensitivity geophone which has been widely used by geophysical contractors and equipment manufacturers.

- High Quality
- High Sensitivity
- Low cost
- Super Reliable
- Greater Savings
- Low Distortion
- Single Point Receiver
- Industry Leader



## Dedicated AIO, 16 Slots AIO, SoloLite The Peripherals of IGU-BD3C-5

Fast Data Harvesting Speed  
USB 3.0@20MB/s

Portable data harvesting and charging

Highly Flexible System Configuration  
Complete Software Suite







### Physical Specs

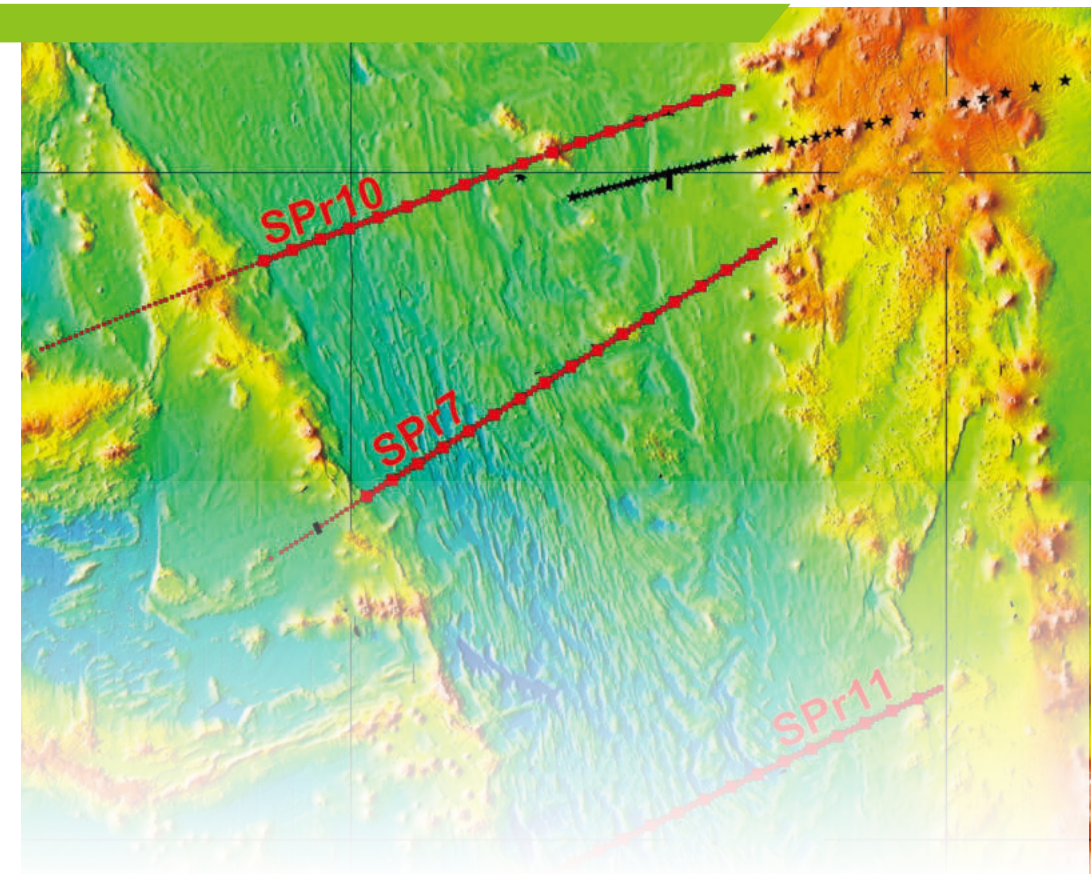
Seismic data channel(s)	3
ADC resolution	24 bits
Sample interval	0.25,0.5,1,2,4,8,10,20 ms
Instrument Noise Floor	Whole frequency band lower than the NHNM curve 5s-1Hz lower than the NLNM curve
Operating temperature	-40°C ~ +70°C
Waterproof	IP67
Physical Size	φ158 x160mm (w/o spike)
Weight	2.8 kg (Including internal battery and spike)
Data Storage	32 GB (can be expanded to 64GB)
Operating Life@25°C	30 days Continuous 60 days Segmented (12h ON/12h SLEEP)
External Power Supply	7V ~ 15V (single supply)
Bluetooth QC	Available
Data Harvesting	USB 3.0
Charging Temperature Range	+3°C ~ +45°C
Charging Time	<7.5H, Fully Charged (Standard battery)

### Acquisition Performance

Frequency Bandwidth	0.2Hz ~ 150Hz
Distortion	<0.1% @12Hz (0° ~ 10° tilt, (0°~3°) horizontal tilt)
Sensitivity	200V/m/s (5.08 V/in/s)
Remark	All parameters are specified at +22°C in the vertical position and horizontal position for horizontal geophone unless otherwise stated

### Channel Performance (@ 2ms sample interval, 31.25 Hz, 25°C, unless otherwise indicated)

Maximum Input Signal	±2.5Vpeak @ Gain 0dB
Instantaneous Dynamic Range	120dB@ Gain 0dB
Common Mode Rejection	>100dB
Gain Accuracy	<1%
GPS Time Standard	1 ppm
Timing Accuracy	± 10µs, GPS Disciplined
Cross Feed	< -110dB
Inter-channel Phase Offset	<0.1ms
Transverse Vibration Rejection	Better than 0.1%
Inter-channel Amplitude Coherence	5%
System Dynamic Range	140 dB
Frequency Response	0~1652Hz



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DTCC reserves the right to change specifications without notice while we improve the quality of our products.