

**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.





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 New Generation 3 components Smart Seismic Sensor


 High resolution data with up to 0.25ms sampling and 24-bit delta-sigma ADC


 Low frequency can reach to 5s


 Real-time seismic data monitoring and sensor status QC


 Internal battery support up to 27 days of continuous recording (see Technical specs for details)

 Internal 32GB memory Can be expanded to 64GB

 Support for external power supply and Bluetooth QC

 Dual LED for status QC Indicate Bluetooth, battery level and working status.

 Built-in GPS receiver and time-disciplined high precision clock

 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



## Data Manager Console (DCC) Data Collector Console (DMC) Portable Data Harvester and Charger

Fast Data Harvesting Speed  
20MB/s @ 32GB @27min

6 Slots All-In-One  
Portable data harvesting and charging

Highly Flexible System Configuration  
Complete Software Suite





### Physical Specs

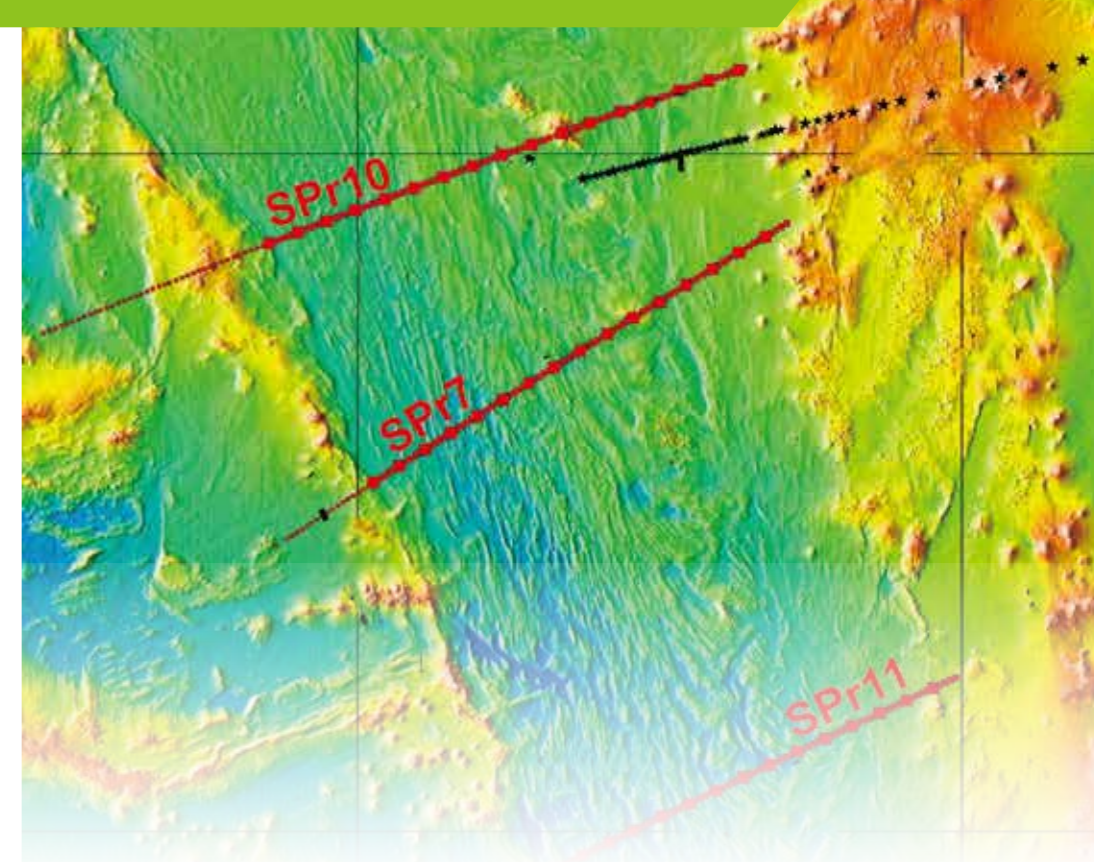
Seismic data channel(s)	3
ADC resolution	24 bits
Sample interval	0.25,0.5,1,2,4,8,10,20 ms
Instrument Noise Floor	Whole frequency band lower than the NHNM curve 5s-1Hz lower than the NLNM curve
Operating temperature	-40°C ~ +70°C
Waterproof	IP67
Physical Size	φ158 x160mm (w/o spike)
Weight	2.7 kg (Including internal battery and spike)
Data Storage	32 GB (can be expanded to 64GB)
Operating Life@25°C	27 days Continuous 54 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 ~ +40°C

### 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
Dynamic Range	120dB@ Gain 0dB
Common Mode Rejection	>100dB
Gain Accuracy	< 0.5%
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%



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