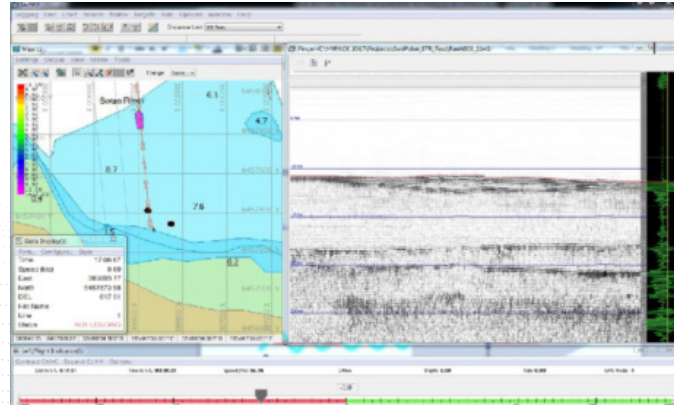


# HYPACK® Geophysics 24Bit Workstation

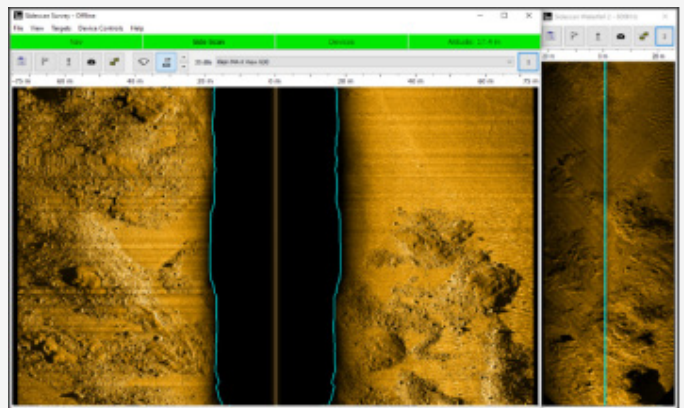


## Key features

- All in one sub-bottom profile acquisition and data processing software
- Real time ultra-high resolution data collection
- Continuous data recording
- Various SEG-Y data storage formats
- Chart and vessel display ability
- Survey planning
- Chart overlay
- SEG-Y and JSF data processing formats
- Industrial ruggedised PC workstation
- 3D supported

## Applications

- Single channel analogue ultra-high resolution seismic operations
- UHR Sparker geophysical surveys
- UHR Boomer geophysical surveys
- Digital SBP interfaces supported



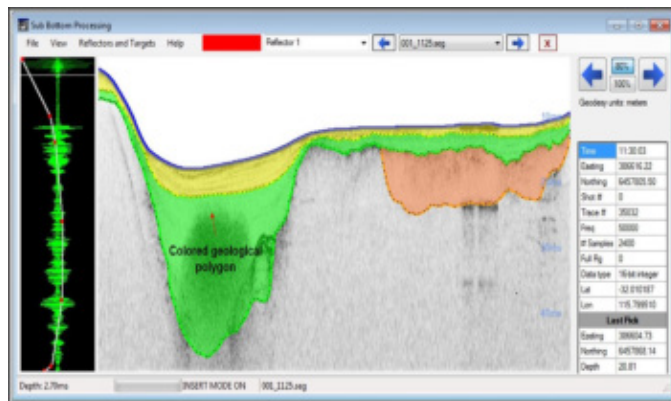
Collect data and map side scan data with the latest sensors on the market, including this data from the Klein MA-X View 600.

## HYPACK® Geophysics Overview

Integrating HYPACK® Geophysics into an industrial ruggedised workstation provides an all-in-one data acquisition and processing software package for the marine geophysical operating environment.

HYPACK® Geophysics is a sub-bottom profiling (SBP) software package designed for marine geophysical, engineering & geotechnical site surveys, dredging, mining applications.

HYPACK® Geophysics has additional logging functionality to support full offline seismic processing of analogue single channel ultra-high resolution data. Geophysics supports dual channel continuous data logging to SEG-Y 2.1 format at industry standard sampling rates and positional information.



Processing sub-bottom data allows for the creation of geological polygons to visualise layers within the recorded data.

## Specification

HYPACK® Geophysics supports the collection and processing of geophysical survey data. Three common geophysical survey devices are supported; magnetometers, side scan sonars, and sub-bottom profilers.

HYPACK® Geophysics enables collating and comparing data from these devices in one interface.

## Feature Benefits

- Survey planning and navigation support
- Support for popular ASV/ USV interfaces (MAVLink, SeaRobotics)
- Side scan data collection, targeting and mosaic tools
- Sub-bottom collection and analysis tools to digitise layers
- Magnetometer support to collect, target and create contours
- Simple and cost-effective solution
- HYPACK® Geophysics can be upgraded to HYPACK® Max
- On-call technical support provided by HYPACK®'s experienced and knowledgeable customer support team

### Survey Planning

HYPACK® Shell, Web Map Server, Line Planning, Autonomous Mission Planning.

### Geodesy

Support for over 100 pre-defined grids including UTM, State Plane, and many country-specific grids. Geodesy supports EPSG code search.

### Position Support

GPS / GNSS / RTK / INS support, including Applanix, SBG, VectorNav, and many others.

### Magnetometer Support

DF 1000, Gem Systems GSM-19, Gem Systems GSMP-35UC, Insight Dual Mag, IXSEA Magis, JW Fisher Proton (3,4,5), JW Fisher Pulse 12, Marine Magnetics SeaQuest (3/4 Channel), Marine Magnetics SeaSPY Explorer, Marine Magnetics SeaSPY Gradiometer, OFG SCM Magnetometer, Quantro Sensing, Scintrex ENVI GRAD, SMM II, UC Magnetometer, Geometrics (881, 882, G-858, G-882 TVG, G-882TVG Mag and Transverse Gradiometer)

## Side Scan Support

Benthos 162x, Benthos C3D, C-MAX CM2, EdgeTech ( 272-T/TD, 4100, 4125, 4200, 4205, 4300, 4600/6205), GeoAcoustics (Digital Side Scan, GeoSwath), Imagenex (878 RGB, AUV, SportScan, YellowFin), Innomar SES, Klein (3000, 3500 Deep, 3900, 4000, 4900, 4K-SVY, 5000, D3500TF, HydroScan 3500, UUV-3500 ), Kongsberg PULSAR, Marine Sonic (Sea Scan, Sea Scan ARC Explorer, Sea Scan HDS, SonarTech SonarBeam S-150, Tritech (SeaKing, StarFish 450/452, 990)

## Sub-Bottom Support

EdgeTech 3000 Series, Falmouth HMX-6xx, Fugro 32 Bit Analog, Innomar SES-2000, Knudsen Pinger, Knudsen Chirp, Benthos SBP, Specialty Devices, SyQwest B2010/SB3510HD, SyQwest StrataBox, Teledyne Odom Chirp III

# HYPACK® Geophysics Technical Specification

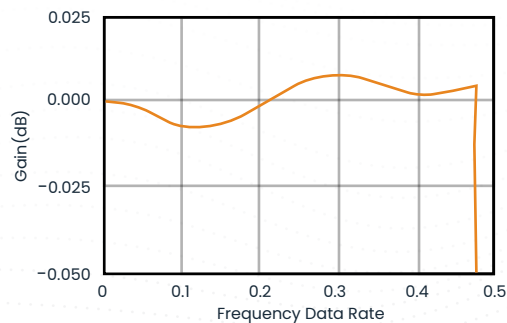
## CASE: INDUSTRIAL 2U ANODISED RACK MOUNTABLE CASE

- 17 10th Gen Intel® Core CPU
- 16GB memory
- 512GB O/S + 1Tb SSD Data log hard drives
- Windows 10 IoT Enterprise
- HP Quadro P620 2GB graphics
- Dual monitor graphics card
- 2 x Serial I-O Ports
- 6 x USB Rear / 2 x USB Front
- 2 x Ethernet 10/100 Port

## ANALOGUE TO DIGITAL CONVERTER

Number of channels	4 (2 required per analogue SBP channel, 1 synch 1 data.)
ADC Resolution	24 bit
Input Range	-5V to +5V
Type	Delta-Sigma (with analogue prefiltering)
Sample Rate	51.2KHz max, user typical 25.6KHz Sample Rates available with the NI-9234 module are limited by the master timebase frequency ( $f_M$ ) of 13.1072MHz and the following equation $(f_s) \frac{f_M + 256}{n}$ where n is an integer from 1 to 31.

## Pass Band



## Coupling

AD or DC

Termination Differential / Pseudo Differential ( $50\Omega$  to GND)

## TRIGGER CARD

Number of channels	4 (2 supported with HYPACK)	
DAC Resolution	16bit	
Output range	-10V to +10V	
Output drive	10mA per channel	
Pulse Width control	1 to 50ms user set on HYPACK control	
Isolation	Channel to channel	250VRMS / 1390VRMS 5 sec test
	Channel to ground	250VRMS / 2300VRMS 5sec test

## ADC AND TRIGGER MODULE ENVIRONMENTAL

Operating temperature	-40 to +70°C
Storage temperature	-40 to +85°C
Humidity operating	10% to 90% RH, non-condensing
Humidity storage	5% to 95% RH, non-condensing
Ingress Protection	IP40
Shock and Vibration	Random 5g RMS, 10Hz to 500Hz Sinusoidal 5g RMS, 10Hz to 500Hz Operating Shock 30g 11ms half sine, 3ms half sine 18 stocks at 6 orientations

## PHYSICAL

Temperature	-5 to +40°C
Dimensions	Depth 400mm, width 430mm, height 90mm
Weight	10kg. Supplied in transit case

## ELECTRICAL

Supply	90-264 VAC supply, 50-60Hz
Earth	Chassis connection