DEWESoft®

PRODUCT OVERVIEW

YEAR WARRANTY
DESIGNING TEST EQUIPMENT THAT SIMPLIFIES THE ADVANCEMENT OF HUMANITY.

WE ARE ON A MISSION TO REVOLUTIONIZE THE MEASUREMENT INDUSTRY BY DEVELOPING INNOVATIVE SOLUTIONS THAT ARE TAILORED TO OUR CUSTOMERS NEEDS.

“We recommend SIRIUS as a great unit to anyone that asks how we like it.” - SpaceX

“I have never encountered a company as competent as yours. Respect! You will always be encouraged and supported by me.” - Bridgestone

“I wanted to personally write to you and tell you how impressed I am with Dewesoft products. The whole Dewesoft team impressed me as extremely happy, smart, and dedicated.” - Irisensors

“We absolutely enjoy using the Dewesoft data acquisition equipment and its software. I think of it as the Porsche 911 of data acquisition (my dream car/our dream test equipment).” - AGI

“It has been a long day, but before going home I wanted to say few things. Thank you from the bottom of my engineer heart and in the name of OneSubsea for what you did today! Yesterday at 10 PM I sent you an email asking for urgent help on a Saturday morning. 30 minutes later you replied you would come. This morning you were 5 people involved in resolving the issue. I have never experienced such customer service! Thanks again, customer service matters a lot to us, and today’s response blew me away.” - OneSubsea

“We absolutely enjoy using the Dewesoft data acquisition equipment and its software. I think of it as the Porsche 911 of data acquisition (my dream car/our dream test equipment).” - AGI

“I think I mentioned in previous emails how Dewesoft has mushroomed here, but even I didn't know how much. I was informed today that the data was being reviewed by up 50 to 60 different centers, along with NASA personnel as high as the manager of the entire Space Shuttle program.” - NASA KSC

“Again, thanks for all the efforts on this project! I greatly appreciate everything you guys have provided to us.” - Bayer

“The setup and measurement process in the FRF module is really fascinating. Among the systems that I have seen, it is the absolutely most straight forward. Geometry and the measurement setup are available as files. It’s a matter of minutes to have the final FRF’s and the animation to get an impression of the vibrations. That’s great!” - IABG
We design and manufacture versatile and robust data acquisition systems that make test and measurement easier than riding a bike. Our instruments are designed to be easy and fun to use, modular and extendable, and can work with any signal and sensor. Dewesoft instruments are built to be robust and can be used in every environment. By investing in our data acquisition solutions you invest in your time and your future.

Are you ready to test and measure?

**DEWESOFT 7-YEAR WARRANTY**
Our warranty covers that the instruments function as promised for a period of 7 years from the day of the delivery.

**MODULAR AND EXPANDABLE**
Systems can be gradually expanded from one to thousands of channels for any measurement challenge.

**AWARD WINNING DEWESOFTX**
One software for all measurement applications. Fast learning curve, no programming needed.

**TOTAL SOLUTION**
Dewesoft hardware and software forms a total solution for all test and measurement applications.

**DEEP IN FUNCTIONALITY**
Used in the most advanced research labs around the world.

**PLUG AND PLAY**
Any device, sensor or signal.

**FULLY SYNCHRONIZED**
Data from various sources are perfectly aligned. Analog, Digital, Counter, vehicle buses, Video, ...

**VERSATILE AND EASY TO USE**
Get your measurements in 30 seconds.

**NO HIDDEN COSTS**
Free lifetime software upgrades, no maintenance fees, free online training courses.
SIRIUS® HIGH-END DAQ SYSTEMS

SIRIUS® XHS
High-speed data acquisition system (15 MS/s) with the new Hybrid ADC technology capable of high-bandwidth transient recording and very high-dynamic, alias-free data acquisition.

SIRIUS® R4/R4rt/R4-HUB
Integrated solution with 4 SIRIUS slices and powerful SBOX computer or USB hub in one unit with real-time EtherCAT® slave interface.

SIRIUS® SBOX
Synchronized, highly reliable data logger and powerful data processing computer.

SIRIUS® MODULAR
Most flexible and distributable single slices with USB and EtherCAT® interface.

ANALOG OUTPUTS
SIRIUS slices can be configured with 8 analog outputs and function as a multi-channel function generator, can also do real-time signal conditioning, analog replay of data in analysis, and perform manual or automated control output with output voltage levels of up to +/- 10 V.

HYBRID ADC TECHNOLOGY
Offers everything you ever wanted out of a high-end data acquisition system. High bandwidth and high dynamic mode available in parallel, software selectable per channel.

ISOLATED CAN BUS INTERFACE
High-speed CAN 2.0b channels with 1 Mbit/s data throughput with additional support for CCP, OBDII, J1939, and CAN output.

Our data acquisition systems are versatile, modular, easy to use and can work with any sensor with the highest precision imaginable. Input channel configurations are flexible and the input channel count can vary from 1 to 1000’s of channels. Our measurement systems are flexible and can grow with you at any time in your measurement process.
**ONE HARDWARE.**

**UNIVERSAL ANALOG INPUTS**
A wide variety of universal and analog amplifiers that accept voltage and full/half/quarter bridge signals natively as well charge and IEPE accelerometers, thermocouple and RTD temperature sensors, current, resistance, and even LVDT sensors, with the use of DSI adapters.

**DIGITAL/COUNTER/ENCODER INPUTS**
Each counter channel is capable of 3x digital inputs, 1x event counter, encoder, period, pulse-width, duty-cycle, and precise frequency and angle measurement using patented SuperCounter® technology.

**HIGH ISOLATION**
High channel-channel and channel-ground isolation prevents ground loops and damage to the system from excessive voltage.

**SENSOR POWER SUPPLY**
Amplifiers provide channel-independent, programmable power supply for sensor excitation.

**DEWESOFT 7-YEAR WARRANTY**
Our warranty covers that the instruments function as promised for a period of 7 years from the day of the delivery.

**SIRIUS® R8DB/R8rt**
Integrated instrument with 8 SIRIUS slices, powerful SBOX computer, optional 19” display (R8D) and batteries (R8DB) and real-time EtherCAT® slave interface (R8rt).

**SIRIUS® R1DB/R2DB**
Small-size instrument with embedded computer, 12” display and batteries.

**SIRIUS® R3**
Up to 3 SIRIUS slices in a rack mounted lab unit with standard easy-to-upgrade computer.
DATA ACQUISITION AND CONTROL DEVICES

Our data acquisition devices are capable of storing hundreds of analog and digital channels at full speed while allowing parallel data to be sent out in real-time to any 3rd party EtherCAT® master controller. We have brought the worlds of data acquisition and real-time control closer together - this will save you time and money in a big way.

DUAL EtherCAT®
IOLITE uses two EtherCAT® buses in parallel. The EtherCAT® primary bus is used for full speed buffered data acquisition to a computer. The EtherCAT® secondary bus is mainly used for real-time data to any 3rd party control system.

REDUNDANT POWER SUPPLY
Together with dual EtherCAT® interface provides maximum system reliability.

GREAT SIGNAL CONDITIONING
IOLITE features high-quality amplifiers which offer great signal quality and up to 20 kS/s sampling rate.

IOLITE®R8/R8r
SIRIUS form chassis with up to eight slots, dual EtherCAT® interface and redundant power supply - also available in rugged chassis.

IOLITE®LX R8
Embedded data acquisition system based on a low-power ARM processor with Linux-based open architecture. IOLITE LX can act as a standalone data logger, real-time control system, and signal conditioning front-end - all at the same time.

IOLITE®R12
19” rack version with up to twelve slots, dual EtherCAT® interface and redundant power supply.

WIDE OPERATING TEMPERATURE RANGE
While IOLITE DAQ systems are labelled to run at -10°C..50°C, certain configurations can operate in the -40°C .. +85°C temperature range.

GREAT PRICE/PERFORMANCE
IOLITE offers great price/performance ratio and is suitable for testbed and industrial applications.
**IOLITE®**

Standalone, distributed, and cost-effective data acquisition device with high-end signal conditioning for monitoring and industrial applications.

**IOLITE®**

Distributed, cost-effective single channel data acquisition device with high-end signal conditioning.

**SIRIUS® R8DB/R8rt**

Integrated instrument with 8 SIRIUS slices, powerful SBOX computer, optional 19" display (R8D) and batteries (R8DB) and real-time EtherCAT® slave interface (R8rt).

**DUAL MODE**

The EtherCAT® slave interface can be used to provide real-time data to a 3rd party control system, while the internal bus allows full-speed recording via DewesoftX software in parallel. Finally, the worlds of data acquisition and control have come together in one system!

**MULTIPLE CHASSIS OPTIONS**

IOLITE can be configured in the 19" cabinet compatible chassis or in more rugged SIRIUS-like compatible chassis.

**DEWESOFT 7-YEAR WARRANTY**

Our warranty covers that the instruments function as promised for a period of 7 years from the day of the delivery.
KRYPTON® RUGGED SYSTEMS

RUGGED DAQ system that can be distributed down to a single channel and placed close to sensors. All DAQ systems offer IP67 degree of protection and are thus waterproof, dustproof, shock resistant up to 100G, and can withstand a temperature range up to -40 °C to 85 °C.

KRYPTON®
Ultra-rugged and distributable data acquisition devices from -40 to +85 °C operating range.

KRYPTON® CPU
Compact, highly portable logger for data recording in harsh environments from -40 to +70 °C operating range.

KRYPTON® 1 SERIES
Distribute your measurements down to a single channel.

MADE TO BE EXTREME
IP67, dust-proof, waterproof, 100 g shock and vibration resistant, wide temperature operating range.

SINGLE CABLE
With up to 100 m between devices for power, data and synchronization.

DISTRIBUTABLE DEVICES
Locate your data acquisition hardware close to the sensors.
ONE HARDWARE

RUGGED SYSTEMS SIRIUS® AND SBOX

SIRIUS®iwe
High-end signal conditioning in rugged form factor from -40 to +60 °C.

SBOXwe
Ultra-rugged and powerful data logger from -40 to +50 °C.

DEWESOFT
7-YEAR WARRANTY
Our warranty covers that the instruments function as promised for a period of 7 years from the day of the delivery.

SIRIUS® DAQ TECHNOLOGY
DualCoreADC®, high dynamic range 160 dB, high isolation, SuperCounter®.

MADE TO BE IP67 EXTREME
Dustproof, waterproof, 100g shock and vibration resistant, wide temperature operating range.

Extremely rugged (IP67 degree of protection) and fully isolated data acquisition system for the most demanding testing in harsh environments. High-precision, high-dynamic, and high-bandwidth for all types of analog signals from IEPE to strain gages.
DEWE-43A
Award-winning and versatile 8-channel USB data acquisition system with unmatched price/performance ratio and hand-size footprint. 8 universal analog inputs, 8 digital/counter/encoder inputs, and two high-speed CAN bus inputs.

SIRIUS® MINITAURs
Versatile 8-channel data acquisition system and data logger with cutting-edge signal conditioning at an attractive price with analog, counter, and CAN inputs.

SIRIUS® MINI
Small and highly portable, USB powered data acquisition system ideal for acoustic, vibration, and rotating machinery analysis.

DEWESOFT 7-YEAR WARRANTY
Our warranty covers that the instruments function as promised for a period of 7 years from the day of the delivery.

SENSOR POWER SUPPLY
Amplifiers provide channel-independent, programmable power supply for sensor excitation.

DIGITAL/COUNTER/ENCODER INPUTS
Each counter channel is capable of 3x digital inputs, 1x event counter, encoder, period, pulse-width, duty-cycle, and precise frequency and angle measurement using patented SuperCounter® technology.

ISOLATED CAN BUS INTERFACE
High-speed CAN 2.0b channels with 1 Mbit/sec data throughput with additional support for CCP, OBDII, J1939, and CAN output.

UNIVERSAL ANALOG INPUTS
A wide variety of universal and analog amplifiers that accept voltage and full/half/quarter bridge signals natively as well charge and IEPE accelerometers, thermocouple and RTD temperature sensors, current, resistance, and even LVDT sensors, with the use of DSI adapters.
**ONE HARDWARE.**

**DSI ADAPTERS**
TEDS equipped adapters that turn SIRIUS, KRYPTON, or IOLITE DSUB9 voltage or strain analog input into a truly universal input supporting a wide variety of signals.

**PCM FS2**
Dual PCM output up to 40 MBit/s in real time from Dewesoft analog data, Chapter 10, simulated data, and other sources.

**BATTERY PACKS**
Dewesoft Li-ION battery packs perfectly match our data acquisition systems for stand-alone, in-vehicle, or remote test and measurement applications.

**CAN / CAN FD INTERFACES**
Multichannel USB and single channel EtherCAT® CAN BUS. Software with support for OBDII, J1939, XCP/CCP, CAN transmit, DBC, and AUTOSAR XML files.

**MOUNTING PLATES**
Flexible and robust mounting plates for Dewesoft data acquisition systems.

**DS-WIFI**
DS-WIFI device is a Wi-Fi modem for long-range wireless data transfer between our data acquisition systems. It is perfectly suited for testing moving objects and for remote measurement applications.

**DISPLAYS**
Rugged, high-resolution, and shockproof LCD displays and display accessories for mobile, and in-vehicle test and measurement applications.

**CAMERAS**
Dewesoft video data acquisition supports standard and high-speed video cameras (DirectX and GigE), thermal cameras for temperature acquisition and visualization, and Ultra-High Speed video synchronization.

**GPS AND IMU DEVICES**
High-accuracy 100Hz GPS receivers and Inertial Measurement Units (IMU) with Real-time Kinematics (RTK) support for the most precise position based test and measurement applications.

**CLAMPS & TRANSDUCERS**
High-accuracy sensors for AC/DC current measurement and power analysis. From current clamps, high-precision zero flux current transducers, shunts, and Rogowski coils.

**VIBRATION SHAKERS**
Full range of modal and inertial shakers with integrated and easy-to-use amplifiers. Our permanent magnet shakers are compact, light-weight, and powerful general-purpose shakers that can be used for modal and vibration testing. They have a high DUT capacity despite their small sizes.

**ETHERCAT® ACCESSORIES**
Dewesoft video data acquisition supports standard and high-speed video cameras (DirectX and GigE), thermal cameras for temperature acquisition and visualization, and Ultra-High Speed video synchronization.
We have designed our data acquisition systems to be universal and versatile and to tackle every test and measurement application. Our plug-and-play DAQ systems can be used out of the box but offer the flexibility that will give you endless possibilities. All our testing applications run on the same easy-to-use data acquisition software which will make you fall in love with your testing work. Our products will introduce several benefits to your work. Faster learning curve, less cost, and finally, all your captured data will be perfectly synchronized and compatible.
GENERAL DATA RECORDING
Dewesoft offers very flexible data loggers and data recorders for low, medium, and high-speed data logging and data recording applications. Our data loggers offer perfectly synchronized data recording from a wide variety of data sources.

POWER ANALYSIS
We offer innovative data acquisition instruments for power analysis and power quality with 0.03% accuracy for high voltage and AC/DC current measurement. Our power and power quality analyzers can be used for any power-based test and measurement application. Flexible, robust, and highly accurate DAQ hardware with easy-to-use DAQ software it’s power and power quality analysis never experienced before.

NVH & DSA ANALYSIS
Vibration analysis and vibration testing are essential in every product design and any maintenance. Vibration may influence the durability and reliability of mechanical systems or structures and cause damage, abnormal stopping, and severe safety issues. Vibration measurements can prevent such problems. Dewesoft offers easy to use solutions for FFT analysis, order tracking analysis, torsional vibration, orbit analysis, and octave band analysis.

ACOUSTICS ANALYSIS
We offer easy-to-use, yet advanced products for acoustics testing to accurately measure and characterize sound and noise emissions of your products. Our one-stop acoustic test solution covers all essential sound measurement applications such as Sound Level, Sound Power, Sound Quality, Sound Intensity, Octave Band Analysis, and Reverberation Time RT60.

VEHICLE ANALYSIS
High-end solutions for vehicle performance, vehicle dynamics, vehicle durability, combustion, electric and hybrid engine testing, components testing, and more. Our unique range of supported data interfaces - Analog, Digital, Counter, CAN, CAN FD, OBDII, J1939, XCP/CCP, FlexRay, Kistler Wheels, Video, GPS+RTK, Inertial Navigation, etc. - all with pin-point synchronization offers an all-in-one solution for all kinds of vehicles, from passenger cars, autonomous cars, trucks, heavy machinery, ships, and airborne vehicles.

MONITORING
Dewesoft offers a variety of affordable solutions for testing and monitoring applications such as structural health monitoring, e.g. of bridges and buildings, or machine condition monitoring of all kinds of industrial and rotating machinery such as turbines or generators for wind or hydropower plants.