



SCARLET | TECH



# COMPANY PROFILE

Scarlet Tech - A Leader in Environmental Health and  
Occupational Safety Instruments.



# About Us

---



## History

Founded in 2011 Taipei, Taiwan, Scarlet Tech designs, engineers and manufactures portable instruments for measuring and monitoring demanding environmental factors. The essential capability of Scarlet is the fusion of medical background and technology taste, along with the capacity of coordinating international academy and local manufactures to implement the design. Every Scarlet product undergoes rigorous functional test and calibration to give our customers accurate and reliable measurements. Scarlet Tech has developed our sales and services in Middle East, South East Asia, Africa, Australia, America and Europe since 2011. Our core value is to work hard for a safer environment and to make the world a better place.





## ESG

At Scarlet Tech, our commitment to Environmental, Social, and Governance (ESG) principles is at the heart of our mission. We align our cutting-edge safety solutions with these values to enhance occupational safety and productivity. Our technologies are engineered to reduce environmental impact, promote community well-being, and uphold ethical governance practices. By embedding ESG principles into our core operations, we improve workplace safety while contributing to a sustainable and equitable future.

# Our Clients

---

Our clients include large multinational corporates, small and medium enterprises, research centers, universities and public institutions from across the world. We nurture every client relationship with commitment, passion and integrity, which is the reason why most of our clients have been with us through years.



**AECOM**



**NETFLIX**



**SPACEX**







# WINDPRO

Remote Wireless Anemometer  
& Control Systems



Multi-Site  
Live Data



Remote  
Wind Alert



IIoT Integration  
Output



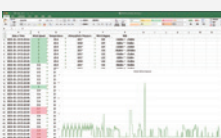
Unlimited  
Data Storage



Max 1 km



Max 1 km



## Data Logging

Export logged  
data in Excel



## Relay Switches

Activate devices with 4  
configurable thresholds



## 4-20mA Outputs

Industrial automation  
controls & data  
acquisition



## RS232 Utility

Live readouts on  
PC-connected utility &  
outdoor signage



## Bluetooth App

Live data & alert access  
on any iOS/Android  
devices



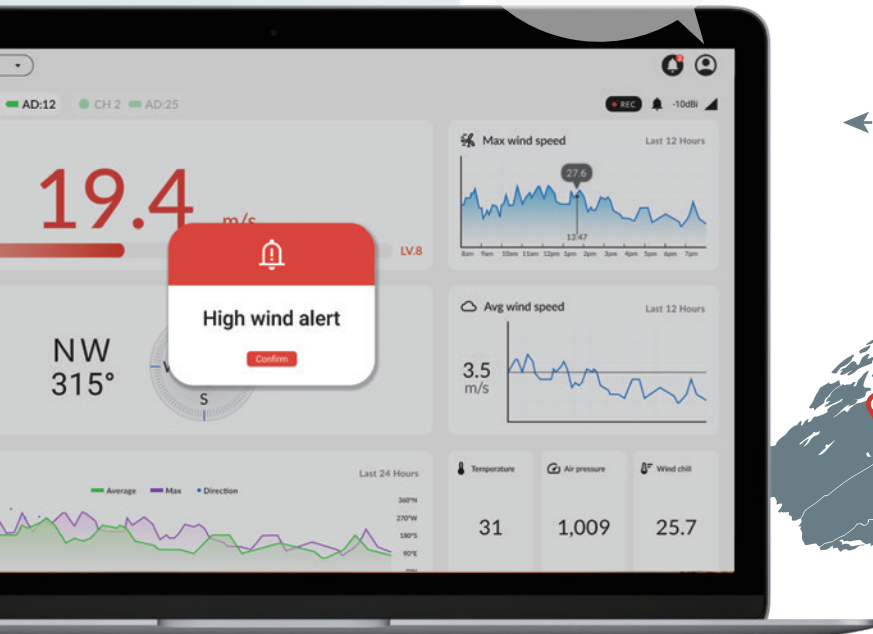


### Email Notification

Notify users with real-time custom safety messages

## WindPro Web Portal

The cutting-edge web-centric platform is compatible with all internet-connected devices, ensuring your team is able to access all essential site specific wind data from different locations on the go.



Access real-time data from multiple worksites on the go



Comprehensive chart & table for analysis and trends prediction

## Manage Operation Smartly with IIoT Safety Integration

WindPro can connect two sensors to one console simultaneously, make monitoring efficient with data displayed in two channels. Users have the ability to configure up to 4 thresholds for each wind sensor, activate the embedded flashlight and audible alarm, control equipments, and display live and reliable readouts of critical industrial metrics.

## Real-Time Remote Alert & Email Notification

The highly configurable event notification function allows users to set up multiple warning thresholds based on event severity. Notify multiple remote users in real-time through sound alert and pop-ups from browser & custom emails.

## Centralized Data Across Multi-Site

Through WindPro Web Portal, users can access visual graphs of historical logs directly online. The raw data uploaded from consoles can be exported to the user's preferred format for further analysis.

## Worldwide Remote Data Access

WindPro Web Portal allows users to monitor wind data and inspect the hardware storage capacity, sensor battery power, and connection status of multiple WindPro devices. Ensure the entire deployment is performing as intended and simplify maintenance efforts across sites.



# WR-3 PLUS

## Wind Speed Wireless Anemometer



**500 Meters  
Wireless Range**



**Easy  
Installation**



**Real-Time  
Wind Alarm**



**Data  
Logging**



Get real-time wind speed alarm in range up to 500 meters



Magnetic self-leveling mounting bracket for easy installation

Scarlet WR-3 Plus is an industrial-grade wireless anemometer for multipurpose applications and long-term environmental monitoring. Package includes a wireless long-range sensor and a portable data logger display suitable for both permanent and temporary installation.

The system measures current/average/maximum wind speed, temperature, wind chill, Beaufort scale, atmospheric pressure, and historic data graphics in high accuracy with customer selectable measurement units. Users can receive instant data and wind speed alarms at a distance up to 500 meters radius from the sensor.

- Audible & visual wind speed alarm
- Data recording up to 1 year
- Wind speed, temperature, air pressure measurements
- IP67 waterproof & impact resistant
- Fast & secure magnetic installation kit

### Specifications

Data Recording	64 MB
Logging Parameters	Wind speed, temperature, air pressure
Wind Speed Accuracy	±2% FS
Wind Speed Range	0.3~50 m/s



BEST SELLER

# WL-21

## Wind Speed & Direction Wireless Anemometer

  
**500 Meters  
Wireless Range**

  
**High  
Wind Alarm**

  
**Data  
Logging**

  
**Wind Speed &  
Direction Sensor**



Extract logged data in Excel with free software



All-in-one logger display designed for long-term data recording

Scarlet WL-21 is a stand-alone wireless anemometer that is versatile and durable for all types of rigorous industrial deployments.

The system measures and displays current/average/maximum wind speed, wind direction, temperature, wind chill, Beaufort scale, atmospheric pressure, and historic data graphic in high accuracy with multiple measurement units. Users are able to set wind speed threshold and receive instant alarm notification when wind speed exceeds the set threshold.

Recorded data can easily export to Excel for wind site analysis, with selectable intervals: 2s, 5s, 10s, 1min, 5mins, 10mins, 60mins.

- Measures wind speed, wind direction, temperature, air pressure
- Data recording up to 1 year
- Wind data with historical graphs
- 3-years sensor battery life
- 500m wireless transmission range
- Instant visual & audible wind alarm

Specifications	
Data Recording	64 MB
Logging Parameters	(Avg/Max) wind speed, avg wind direction, avg temperature, avg air pressure
Wind Speed Accuracy	±2% FS
Wind Speed Range	0.3~50 m/s

# E11 EX II 2 G EX ib IIB T4

## Intrinsically Safe Wireless Anemometer



World's 1st  
ATEX Approved



Wind Speed &  
Direction Sensor



3 Alarm  
Set Points



Easy  
Installation



Scarlet's WSD-E11 is ATEX-certified as EX II 2 G EX ib IIB T4 for use in hazardous areas Zone 1 and Zone 2. With a wireless transmission range of to 1,300 meters, users can remotely monitor wind situations at a safe distance from the non-hazardous areas to eliminate any potential dangers.

E11 features 3 different wind speed active warning and alarm set points, allowing users to customize their alarm systems. Based on pre-set values, the receiver can trigger local alarms and external indicators via four built-in relays when wind speeds exceed the threshold. Scarlet is committed to making your workplace both safe and smart.

- **Wireless intrinsically safe anemometer for hazardous worksites such as oil & gas, mining, manufacturing, and construction.**
- **ATEX EX II 2 G EX ib IIB T4 certified, safe for use in Zones 1 & 2.**
- **No cable interference or risks from mechanical operation.**
- **IP67 waterproof sensor endures all challenging environments.**
- **3 different active warning and alarm set points for customizable local alarm systems.**

Specifications	
Measurement	Wind speed, wind direction, temperture
Wireless Range	Max 1,300 meters
Outputs	Relays, 4-20mA, bluetooth
Data Rate	Every 2 seconds



Intrinsically safe for applications in Zone 1 & 2 hazardous sites



Complied with ATEX standards for offshore and oil tank ships



# Wind Safety Solution for Mega Projects

## Live Wind Speed & Direction Data with Instant Alerts

Scarlet's WindPro has been utilized in numerous mega projects, offering advanced wind monitoring solutions. SpaceX has used WindPro at their launch site; it was integrated into the safety protocols, allowing for the setting of multiple wind speed thresholds and triggering external alarms in real-time to ensure immediate safety responses.

Another application was during Amsterdam2023, a global event held at the Olympic Stadium in Amsterdam, where WindPro showcased its capabilities by monitoring two wireless wind sensors simultaneously. The wind data was accessible online via a user-friendly web portal, allowing users to track conditions, receive real-time notifications, and access historical data remotely, ensuring robust event safety management.





# HERCULES PRO

## Wireless Tower Crane Camera



Enhance Safety  
& Efficiency



Ultra-Long  
Range



Instant Audio &  
Visual Feeds



Vast Camera  
Configuration



## Ultimate Blind Lift Solution for Tower Cranes

HerculesPro is an industrial IoT-ready, long-range camera system designed to improve crane safety and construction sites productivity. The system consists of a high-resolution Starlight hook-mounted camera, industry-leading Wi-Fi 5GHz wireless transceivers, and a monitor to deliver live load-view positioning in the operator's cabin.

### Block Camera



- 2K ultra-wide lens
- Clear vision in low-light
- 24/7 surveillance recording



### Cabin Monitor



- Instant & clear video of loading area
- 5GHz wireless technology
- Up to 4 channels livestream
- Control and playback with a USB mouse





ALL NEW

# Optimizing Safety & Execution Excellence

HerculesPro's high-speed long-range transceiver extend communication range & bypass obstacles. The system fits for all cranes & challenged operations. HerculesPro revolutionizes the construction site to help everyone works safer and smarter.

## Crane Operators

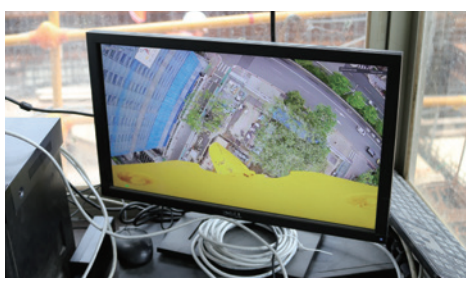
- Overcome blindspots & detect hazards
- Verify the loading area directly
- Optimize operation safety & efficiency

## Safety Managers

- Maintain compliance & accountability
- Track & report with surveillance video
- Evaluate subcontractor performance

## Senior Management

- Optimize & document project timeline
- Minimizing costly accidents
- Get real-time insight remotely



Specifications	
Resolution	2K QHD (2304 x 1296, 3 MP) / HD (1280 x 720, 1 MP)
Wireless Technology	Wi-Fi 5 GHz
Night Vision	Starlight full-color night vision
Video Storage	96 hrs (2K) in camera SD card + 30 days in Monitor Console
Camera Angle of View	110° Ultra-wide angle

## Office



- Cloud-based video recorder
- 24/7 backup recording
- Multi-channel remote live monitoring
- Vast camera configuration for your network





# SV300

## Wireless Mobile Crane Camera



Max 300 Meters  
Wireless



Easy  
Installation



Real-Time  
Load View



Recording  
& Playback

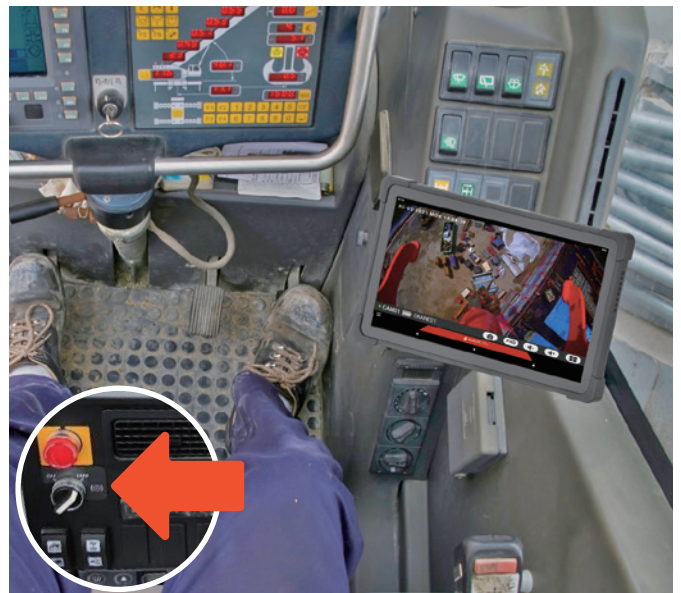


## Elevate the Safety & Efficiency of Every Lift

SV300 is the ultimate solution to elevate crane operation safety. The wireless crane camera offers real-time audio and visual footage of the loading area and effectively addresses potential hazards, allows operator confidently handle heavy loads in demanding conditions and safeguard individuals on-site.



Live visual under the load, no manual control required



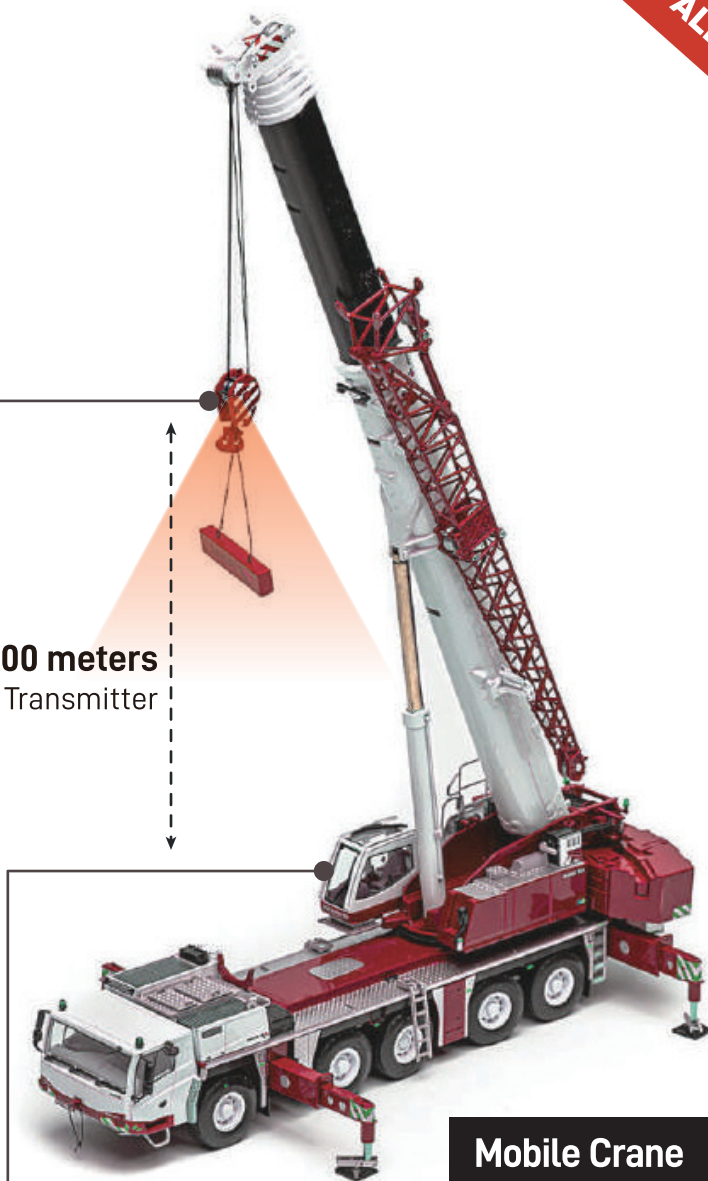
Plug-n-play effortless installation



ALL NEW



Max 300 meters  
Wireless Transmitter



Mobile Crane



SV300 Camera

### On the Hook Block

#### SV300 Camera

- Max 300 meters wireless transmitter
- Waterproof, robust aluminum housing
- SD card video recorder
- Rechargeable battery
- High-strength magnetic mount



Tablet



Streambox

### In the Operator's Cabin

#### Tablet

- Live audio-visual feed
- 2K high-res wide ultra XGA resolution

#### Streambox

- High-speed transceiver
- Powered by DC 12V / cigarette lighter plug

## CASE STUDY

# The Key for Safe Lifting

## Chosen by Flagship Companies

### Acting as A Dashcam on Truss Cranes

The Truss Company addresses key challenges on their construction sites with the SV300, which provides real-time video of lifting areas. This allows team members to quickly identify and address potential lifting issues, reducing downtime and preventing costly errors. Additionally, the SV300 records each lift, offering valuable footage that can be shared with clients or stakeholders for review if needed. By enhancing safety and ensuring transparency, the wireless crane camera helps tackle crucial pain points in the construction process.

### Multi-Tower Crane Lift Monitoring at Complex Sites

At the Chickamauga Lock Replacement, where five tower cranes are in operation, it's essential for crane operators and site officers to monitor lifting activities remotely. The challenge is compounded by a traffic bridge separating the construction site from the site offices.

To ensure clear visibility of lifting operations, HerculesPro wireless cameras are installed on each tower crane, with monitor consoles set up inside the cabins, allowing operators to see live feeds of the lifting area. Cloud-based video recorders are placed at the site offices for real-time remote monitoring, and a control system is installed between the construction site and the offices to facilitate smooth video transmission.









# TWL-1SV

## Online Heat Stress Weather Station



Cloud-Based  
Heat Monitoring



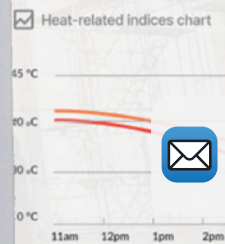
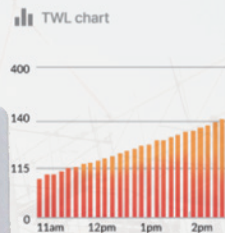
Instant  
Alert



Data  
Logging

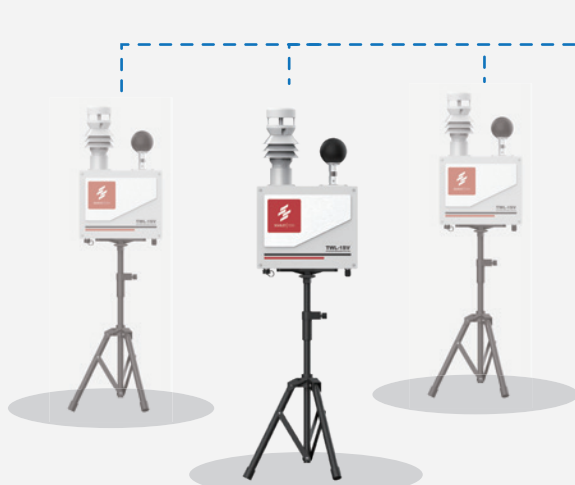


Real-Time  
Data



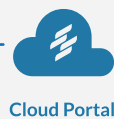
TWL-1SV is an advanced heat stress weather station designed to enhance heat safety and enable remote management. It calculates TWL, WBGT, and HI, providing users with live heat measurements online.

## Comprehensive IoT-Driven Heat Safety Solution



### Real-Time Data

Heat indices are easily calculated and sent to the web portal via the internet automatically.



### Remote Monitoring

All members can access the web portal and monitor multiple TWL-1SV devices.



ALL NEW



### Ultrasonic Wind Sensor

- Air temperature and humidity
- Wind speed and direction



### Black Globe Temperature Sensor

- Radiant heat temperature



### Installation and Durability

- Quick installation
- IP67 rating for waterproof



### Data Logging

- Cloud-based storage
- SD card for device backup

Specifications	
Heat related index	TWL, WBGT, Heat Index
Measurement	Wind speed, wind direction, relative humidity, dry bulb & wet bulb temperature, globe temperature
Mechanical	White metal casing, mountable on a tripod for versatile placement
Internet connection	Ethernet via RJ45 connector (Default) 4G LTE (Optional)
Logger memory	Measurement data stored in the cloud with unlimited capacity



Low TWL Warning

### Instant Alerts

Receive TWL-based heat alerts via browser and email on any smart device.



# TWL-1S

## Heat Stress Meter



Accurate &  
Reliable



Risk  
Indication



Smart Work  
Management



Instant Visual &  
Audible Alert



Suggests maximum level of work according local environment



Precise thermal monitoring. Perfect for construction, mining projects

### World's First Thermal Work Limit Solution for Extreme Weather Conditions. The Best Heat Stress Management Tool for Project and HSE Managers.

Endorsed by Health Authority - Abu Dhabi, OHSAD, ADNOC group, and other major contractors as heat stress standard at worksite.

- Built-in TWL algorithm and official work-rest guidelines, shows risk level flags and completed instruction for work, rest, and hydration. Ensures all operations can comply with TWL value.
- The countdown timer shows the remaining time before a recommended rest.
- Simply export logged data by connecting TWL-1S to Windows PC via a USB cable.
- User-friendly monitoring dashboard, 3 different colors indicate 3 different risk levels based on the TWL value.

Specifications	
Measurement	Wind speed, relative humidity, dry bulb & wet bulb temperature, globe temperature, WBGT, TWL
Operating Range	-10 ~ 60 °C
Logger Memory	2,000 readings
Standard	Certified by CE mark following the EN 61326-1:2006





## CASE STUDY

# Trusted by Global Industrial Leaders

### The Heat Stress Monitor Benchmark in UAE, KSA, and Other Regions

Scarlet's Heat Stress Monitor Solution has been trusted to enhance heat safety in the Middle East. Public health authorities in the UAE and Saudi Arabia have incorporated the Thermal Work Limit (TWL) index into their heat safety guidelines. Furthermore, leading enterprises such as Abu Dhabi National Oil Company (ADNOC), Emirates Group, and Al Fara'a General Contracting (AFGCO) have relied on the TWL-1S to prevent heat-related illnesses among their workers.





# ST-12D

## Class 1 Sound Level Meter



IEC 61672:2013  
Class 1



Colorful LED  
Display



Octave Analyzer  
Upgradeable



64GB  
Storage



Scarlet ST-12D is essential for noise safety across various applications to ensure compliance with local standards. It conducts high-accuracy sound measurements and records every data for further analysis. With a user-friendly interface for simple operation and setup, it is a top choice for occupational and environmental noise evaluation.

## Professional Sound Analyzers for Comprehensive Noise Measurements

ST-12D calculates all crucial parameters with its built-in comprehensive analyzers. Each analysis page supports different display modes including graphical charts to provide a clearer picture of noise environment.



### • Integral Analysis

$L_{xy,p}$ ,  $L_{xy,max}$ ,  $L_{xy,min}$ ,  $L_{x,eq,T}$ ,  $L_{x,eq,t}$ ,  $L_{x,peak}$ ,  $L_xE$ ,  $E$   
 $X = A, C, Z$   
 $Y = F, S, I, I_{10}$



### • Statistical Analysis

$L_{xy,p}$ ,  $L_{xy,max}$ ,  $L_{xy,min}$ ,  $L_{x,eq,T}$ ,  $L_xE$   
 $LN (N=1\sim99) : L_5, L_{10}, L_{50}, L_{90}, L_{95}, SD, L_{dn}, L_d, L_n$



### • Exposure Analysis

$E$ , TWA,  $L_{ex}$ , 8h, LAVG, DOSE



### • Real-time 1/1 & 1/3 Octave Band Analysis (Optional)

$L_{x,p}$ ,  $L_{max}$ ,  $L_{min}$ ,  $L_{eq}$ ,  $T$   
Center frequency range : 10 Hz ~ 20 kHz



ALL NEW

## Reliable for Industrial Noise Assessments

- Class 1 precision microphone
- Durable and rugged design
- Wide measurement range
- Intuitive interface for simple operation
- Extensive measurement functions
- Real-time noise measurement
- Data logging



Specifications	
Measurement Range	25 ~ 140 dB (143 dB C Peak)
Time Weightings	Fast, Slow, Impulse, I10
Frequency Weightings	A, C, Z
Accuracy	± 0.5 dB
Audio Recording	Record noise data in MP3/WAV format
Storage Capacity	4 GB internal memory 64 GB SD card
Measurement Run Time	1s ~ 99 h 59 m 59 s
Operation Time	24+ hrs battery life by 4 x AA alkaline batteries
Output Interface	USB type-C, Bluetooth, AC/DC signal, Serial
Display	240 × 320 pixel full-color display
Display update	Every 0.5 seconds

## Direct Print Out Noise Data On-Demand

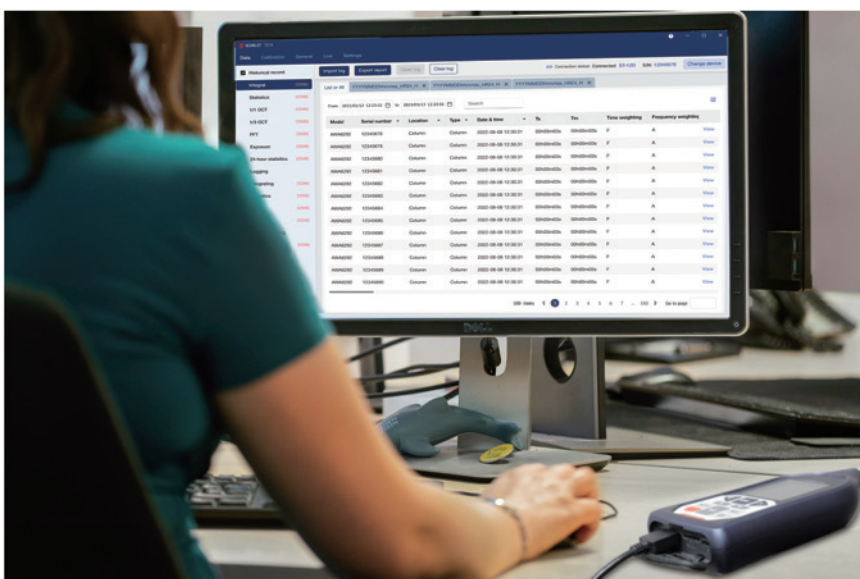
Scarlet provides a portable thermal printer that pairs with ST-12D via Bluetooth, allowing you to easily obtain a noise report immediately after the measurement.



## Easy Data Management with USB or PC Software

With a large storage capacity, the ST-12D is able to save abundant measurement data and audio records. It enables direct data export to your PC via USB connection or retrieval through Scarlet's exclusive PC software.

The PC software also offers a simpler way to view historical records with charts and tables, replay audio recordings, and monitor real-time noise levels.







BEST SELLER


# ST-11D

## Class 1 Sound Level Meter

  
User  
Friendly

  
Precise  
Measurement

  
Data  
Logging

  
IEC 61672:2013  
Class 1



Ideal for long-term environmental measurements



Widely adopted for industrial noise surveys

ST-11D complies with the latest standard IEC 61672:2013. Safeguard and ensure employees' hearing & occupational safety at the front line.

With its low power consumption and support for USB port charging, ST-11D offers extended hours of usage. It measures and displays the Leq value, while also providing information on equivalent continuous sound levels and sound exposure for selected time periods.

Equipped with intelligent integrating algorithms and a wide measuring range of 27 ~ 140dB, making ST-11D highly capable for use in the most challenging industrial environments. Its outstanding performance sets it apart in the market and has been a best-selling model over the years.

- Data logging function
- Wide measurement range
- Easy data export via USB/RS-232 serial port
- Long term measurement

Specifications	
Measurement Range	27 ~ 140 dB
Frequency Range	10 Hz ~ 20 kHz
Accuracy	±0.7 dB
Display Update	Every second



# ST-15D

## Class 1 Sound Analyzer



IEC 61672:2013  
Class 1



Monitoring  
Software



1/3  
Octave



GPS  
Analyzer



Locate noise source with GPS



Smart software for sound data management

Scarlet ST-15D is a professional-grade sound level meter that complies with the IEC 61672:2013 Class 1 accuracy and the ANSI/ASA S1.4 Type 1 International standard.

ST-15D features a GPS analyzer and octave band filters, enabling precise sound analysis and identification of noise sources. It is equipped with a 32 GB SD card, capable of storing both audio recordings and measuring data. ST-15D allows for simultaneous measurement of multiple noise parameters, offers 4 different running modes to start measuring, and supports a user-friendly graphical chart display mode. Additionally, users can do real-time monitoring and data exportation with computers through the ScarletSound PC software.

This model can be upgraded to include advanced analysis features such as 1/1 & 1/3 octave band filter, and FFT analysis.

- Data logging & audio recording function
- 24-hour automatic monitoring
- Professional PC software - ScarletSound
- Advanced analysis functions

Specifications	
Measurement Range	20-142 dB (145 dB Peak)
Frequency Range	10 Hz ~ 20 kHz
Accuracy	±0.5 dB
Display Update	Every 0.5 seconds



# ST-21D

## Class 2 Sound Level Meter



ST-21D fully complies with the latest Class 2 standard, IEC 61672:2013. With advanced integrating algorithms, it is specifically designed to withstand industrial conditions.

ST-21D serves as a perfect solution for complying with noise regulations and standards, it is capable of calculating equivalent continuous sound level and sound exposure for a chosen time period, an ideal tool for various applications including basic environmental measurements, entertainment, and vehicle noise assessment.



Easy Data Exportation



Class 2 IEC 61672



# ST-25D

## Class 2 Sound Analyzer Meter



Scarlet ST-25D features statistical analysis and integrated measurement functions. It enables simultaneous measurement of multiple noise indices to suit different assessment needs. With optional octave band spectrum analysis upgrades, ST-25D provides even more in-depth information. It also supports 4 selectable running modes that give users enhanced flexibility and utility.

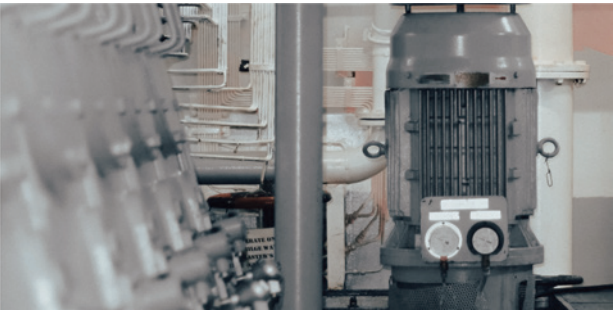
ST-25D serves as a robust data logging device with its built-in 32 MB flash memory and 32 GB SD card storage. Saved files can be opened directly in Excel for easy reporting and data access.




PC Software - ScarletSound



Wide Measurement Range





We test and calibrate every single instrument to meet the highest standards. Because... 



# SAFETY IS BEYOND MEASURE





**SCARLET | TECH**

+886-2-2709-2363

info@scarlet.com.tw

www.scarlet-tech.com



4F-3, No. 347, HePing E Rd 2nd Sec, DaAn Dist, Taipei Taiwan 106