SCARLET | TECH

COMPANY PROFILE

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

About Us

SCARLET | TECH

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.

Goals

We care about health, safety and environment. We prioritize our customers' needs and are dedicated to resolving their problems. Our customers stay with us because of our flexibility and excellent support. We want to improve occupational safety & health by leveraging wireless and IoT technology. We deliver tailor-made, state-of-art instrumentation to help our clients focus on their work.

What We Do

- Instruments & meters
- Software design & development
- Smart phone applications design & development

- Total solutions for worksite safety
- Web-based solution for site wind monitoring
- Customized weather station design

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.

AMERICA'S NAVY — FORGED BY THE SEA

AECOM

PKG Kiewit

NETFLIX

GE Renewable Energy

LIEBHERR

TADANO

DOW

Emirates

MAMMOET

European Bank for Reconstruction and Development

SPACEX

أرامكو السعودية saudi aramco

DP WORLD

Balfour Beatty

Shell

WINDPRO
Industrial IoT-Ready Remote Wind Monitor

Email Notification
Notify users with real-time custom safety messages

High wind alert
Confirm

Multi-Site Live Data

Remote Wind Alert

IIoT Integration Output

Unlimited Data Storage

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.

Max 1 km

Max 1 km

Data Logging
Export logged data in Excel

Relay Switches
Activate devices with 4 configurable thresholds

4-20mA Outputs
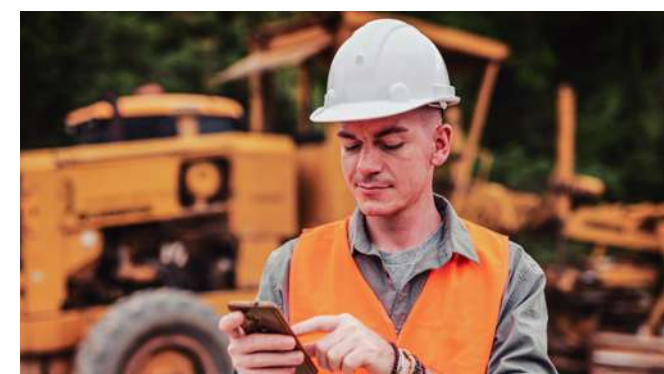Industrial automation controls & data acquisition

RS232 Utility
Live readouts on PC-connected utility & outdoor signage

Bluetooth App
Live data & alert access on any iOS/Android devices

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

Wireless Anemometer

500 Meters Wireless Long-Range

Robust & Easy Installation

Real-Time Wind Alarm

Data Logging

WL-21

Innovative Wind Speed & Direction Logging System

500 Meters Wireless Long-Range

High Wind Alarm

Long-Term Data Recording

Wind Speed & Direction, Temp., Air Pressure

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

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, 5 mins, 10 mins, 60 mins.

• 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	64MB
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

WINDSMART

Bluetooth Anemometer

🔵 **30 Meters Bluetooth Range**

📱 **Multi-User Access**

🚨 **Live Wind Alert**

⚙️ **Swift & Simple Setup**

Download on the App Store

Download on the Google Play

WindSmart Anemometer turns your smartphone into a high-tech meteorological tool. The professional cup anemometer takes the real-time data of live wind speed, maximum wind speed, ambient temperature, and air pressure. The sensor can operate with multiple smart devices at the same time. The user may set an alarm based on the wind speed value. Every unit has been through wind tunnel calibration to ensure precision.

WindSmart Mobile APP

- Live wind speed, wind direction, temperature, air pressure
- Real-time wind speed alert at custom threshold
- Past 10 minutes historical wind records
- Max 30 meters bluetooth range
- Multiple users access
- Easily toggle between different sensors data
- Selectable unit of measurement

Effortlessly switch between different sets of sensor data

Sensor data is accessible to all users on site

Specifications	
Measurement	Wind speed, temperature, air pressure
Wireless Range	Max 30 meters
Data Rate	Every 2 seconds
Accuracy	±2% FS
Measurement Range	0.3~50 m/s

E11 ⚠️Ex EX II 2 G EX ib IIB T4

Intrinsically Safe Wireless Anemometer

Scarlet's WSD-E11 is certified as EX II G EX ib T4 by ATEX approvals for use in hazardous areas zone 1 and zone 2. The user can monitor the wind situation at a safe distance from the non-hazardous area to eliminate any potential danger.
Wireless transmission distance up to 1,300 meters (XB model).
Easy-to-use solution for wind site evaluation in remote supervision. With three different active warning & alarm set points, users can customize their alarm systems.
Scarlet explosion-proof wireless anemometer allows external devices connectivity. Based on the pre-set values, the receiver can trigger local alarms and external indication via 4 built-in relays when the measured wind speeds exceeding the threshold. Scarlet aims to let you manage your workplace not only safe but smart.

Intrinsically safe for applications in Zone 1 & 2 hazardous sites

- **Wireless intrinsically safe anemometer for hazardous worksites such as oil & gas, mining, manufacture, and construction**
- **ATEX 2G Ex ib IIB T4 certified. Safe to used in Zone 1&2**
- **No cable interference, no risks from mechanical operation**
- **IP67 waterproof sensor endure the all challenging environments**
- **3 different active warning & alarm set points, allows customization with local alarm system**

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

Complied with ATEX standards for offshore and oil tank ships

HERCULES

Wireless Tower Crane Camera

- **Enhance Safety Maximize Efficiency**
- **Ultra-Long Range Wireless**
- **Streaming, Recording, Playback**
- **ONVIF Conformant Integration**

Ultimate Blind Lift Solution for Tower Cranes

Hercules 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
- Starlight camera lens provide clear vision in low-light
- 24/7 surveillance recording
- Sustainable for 35+ hours continuous operation

StreamLink
Monitor
Camera

Cabin Monitor

- Wi-Fi 5G wireless technology for precise, low-latency video footage
- Up to 4 channels livestream
- Administrator account for control & playback
- Clear & unobstructed view from below the hook and surroundings

Internet
4G LTE / LAN / Wi-Fi

Office

Mobile Device & PC

- Cloud-connected NVR remote access
- 24/7 backup recording
- Multi-channel remote live monitoring
- ONVIF conformant integration with existing security network

Optimizing Safety & Execution Excellence

Hercules's high-speed long-range transceiver extend communication range & bypass obstacles. The system fits for all cranes & challenged operations. Hercules 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

Specification	
Resolution	2K QHD 2304 x 1296, 3MP / HD 1280 x 720, 1MP
Wireless Technology	Wi-Fi 5GHz
Night Vision	Starlight full-color night vision
Video Storage	120 hours (HD resolution)
Camera Angle of View	110° Ultra-wide angle

SV300

Wireless Mobile Crane Camera

Max 300 Meters Wireless

Easy Installation

Real-Time Load View

Recording & Playback

Max 300 meters
Wireless Transmitter

Mobile Crane

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.
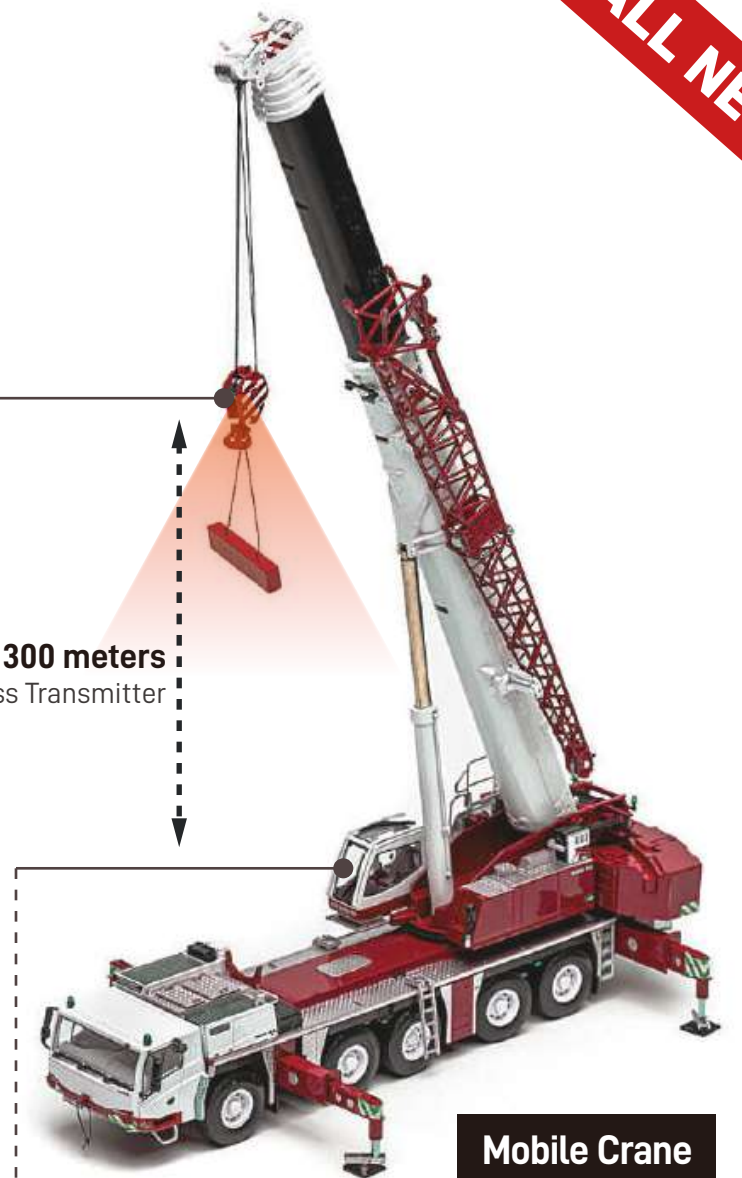
SV300 Camera

Tablet   **+**   **Streambox**

Live visual under the load, no manual control required

Plug-n-play effortless installation

On the Hook Block

In the Operator's Cabin

SV300 Camera
- Max 300 meters wireless transmitter
- Waterproof, robust aluminum housing
- SD card video recorder
- Rechargeable battery
- High-strength magnetic mount

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

Streambox
- High-speed transceiver
- Powered by DC12V / cigarette lighter plug

TWL-1S

Heat Stress Meter

Accurate & Reliable

Risk Indication

Smart Work Management

Instant Visual & Audible Alert

Suggests maximum level of work according local environment

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.

Precise thermal monitoring. Perfect for construction, mining projects

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

SL-27 ⟨Ex⟩ Ex II 2G Ex ib op is IIC T4 Gb

Explosion-proof Rechargeable Torch

Rechargeable

Waterproof

3 Modes

- Cree XPE-R4 LED
- 1000 times battery charging cycle
- Anti-drop and shock-proof structure
- Special arc design for emergency glass breaking

- Waterproof sealing ring, can be used normally under water
- Rechargeable
- 100,000 hours long life span
- Lumens : 100 lm

SL-27	Low	Strobe	High
Battery	18650 Rechargeable Battery		
LED Power	3 W		
Light Source	Cree XPE-R4 / Lifespan of 100,000 hrs		
Charging Time	6 hr		
Working Voltage	4.2 V		
Charger	100 ~ 240 V AC (50 Hz) power supply		
Working Time	16 hr	8 hr	8 hr
Beam Distance	100 meters	300 meters	300 meters
Light Output	80 lm	100 lm	100 lm
IP Rating	IP67		
Weight	182.4 g (Battery included)		
Dimension	137.7 x 33 x 33 mm		
Lens Material	Aviation grade aluminum alloy		

⟨Ex⟩ Ex II 2G Ex ib op is IIC T4 Gb   CE Approved   RoHS compliant Approved

ST-11D

Class 1
Sound Level Meter

Wide Measurement Range

Precise Intergrated Weighting

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
- User-friendly interface
- 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-12D

Class 1
Sound Level Meter

2.4-inch Full-Color Display

Bluetooth Connection with Printer

Large Data Capacity

IEC 61672:2013 Class 1

Real-time noise monitoring through Scarlet's PC software

Safeguarding workplace environments

ST-12D sound level meter is an advanced model upgraded from ST-11D. Designed as a professional Class 1 precision sound level meter, it is an indispensable tool for occupational health and safety experts.

With an enlarged data storage capacity of 4GB internal memory and support for up to 64GB extended memory using a micro SD card, ST-12D provides ample storage for the measured data. The Bluetooth functionality allows connection to a portable printer to conveniently print out the measurements on-site.

Additionally, ST-12D introduces an all-new PC software for real-time noise monitoring and data export, empowering users with enhanced capabilities and flexibility.

- Measure multiple parameters simultaneously
- Intuitive user interface
- Full-color display
- Power delivered by USB-C port for extended use
- Precise audio recording (.mp3, .WAV)

Specifications	
Measurement Range	25 ~ 143 dB
Frequency Range	10 Hz ~ 20 kHz
Accuracy	±0.5 dB
Display Update	Every 0.5 seconds

ST-15D

Class 1
Sound Analyzer

IEC Certificate

Monitoring Software

1/3 Octave

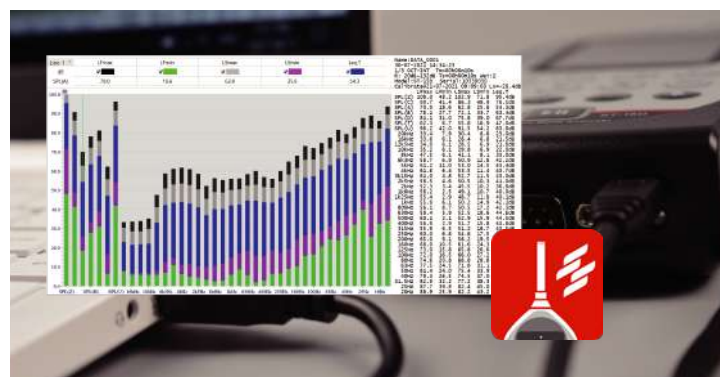**GPS Analyzer**
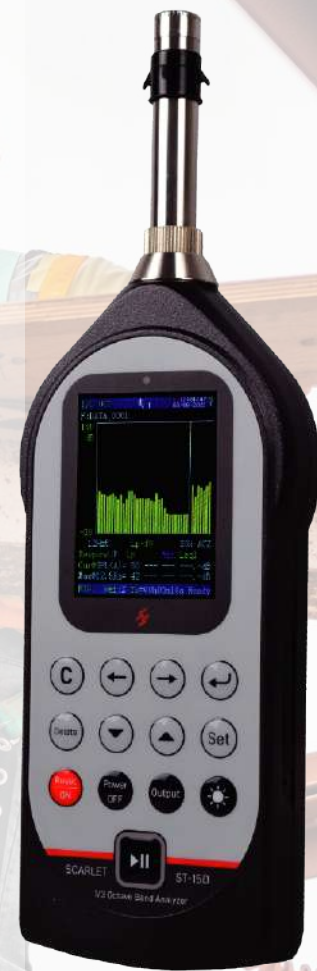
Locate noise source with GPS

Smart software for sound data management

Scarlet ST-15D is a professional-grade sound level meter that complies with the IEC 61260-1:2014 Class 1 accuracy standards and the ANSI/ASA S1.4:2014 international standards.

ST-15D features a GPS analyzer and octave band filters, enabling precise sound analysis and identification of noise sources. It is equipped with a 32GB 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
• 24H automatic monitoring
• Professional PC software - ScarletSound
• Advanced analysis functions

Specifications	
Measurement Range	20 -142dB (145dB 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 Sound Level Meter 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 32GB SD card storage. Saved files can be opened directly in Excel for easy reporting and data access.

PC Software - ScarletSound

Wide Measurement Range

ST-591

Noise Dosimeter

ALL NEW

IP65 IP65 Rated

👍 Intuitive User Interface

🔌 Rechargeable

🤲 Light Weight

80.6

Keep employees safe from noise hazards where it matters most

Precisely capture, record, and calculate workers' noise exposure

ST-591 noise dosimeter is the front-line protection for those facing the most severe threats of noise exposure, keeping your team safe on the job site. This dosimeter is lightweight and cable-free, allowing it to be worn on the shoulder near the worker's ear to measure the direct noise exposure of an employee. It delivers precise, reliable noise measurements that threaten employees' hearing in challenging workplaces. ST-591 is easy-to-use and does not require a noise assessor to be present throughout the day.

Equipped with built-in 1/1 and 1/3 Octave filters, ST-591 noise dosimeter enables precise analysis of noise levels across different frequency components. Supports audio recording in WAV format, enabling further analysis and re-play.

- Lightweight and robust case with IP65 ingress protection
- Large 64GB data storage capacity
- USB-C port for charging and exporting data
- Built-in 1/1 & 1/3 octave band filter

Specifications	
Measurement Range	54 dB ~ 142 dB (A, C) 57 dB ~ 142 dB (Z) 71 dBC ~ 145 dBC (C peak)
Frequency Range	20 Hz - 12.5 kHz
Dimensions / Weight	90×49×64 mm / 119 g
Working Temperature	-10 ~ 40 °C

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

SAFETY IS BEYOND MEASURE

SCARLET | TECH