NEW

HORIBA

Compact Emissions Measurement System

MEXAcube

IRLAM by HORIBA

Explore the future

HORIBA

Reliable, user-friendly exhaust gas measurement for a wide variety of fuels in the lab or in the real world.

MEXAcube utilizes our proprietary technology, 'IRLAM™', to provide continuous support for the development of ICEs. It helps meet new regulations, including those for diversified fuels.

Easy to Use

Easy setup anywhere

Designed for Reliable Testing

Stable measurement in any environment

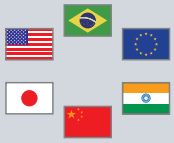
For Carbon Neutrality

For developing next-generation mobility

A total package: analyzers, flowmeters, calculations, and testing to comply with regulations.

Analyzer

Flowmeter



Calculation

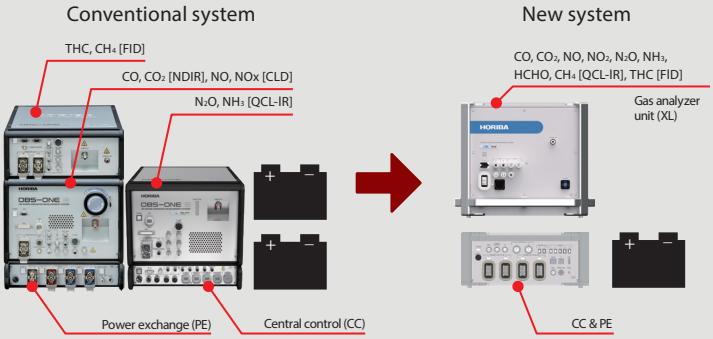
Testing

Easy to Use

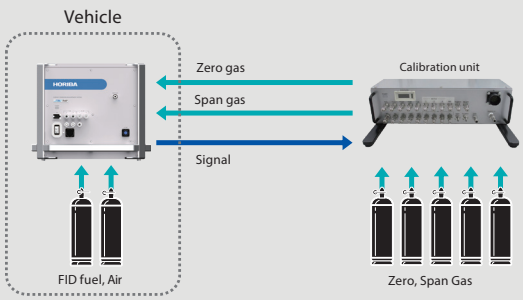
■ Easy-to-install design for both labs and the real world

- A compact system that integrates multiple units
- Reduces the quantity of tubes and pipes by approximately 50% compared to conventional systems*1
- Reduces number of batteries
- Portable analyzer that can be carried when and where you want to use it
- No need for special utilities such as liquid nitrogen

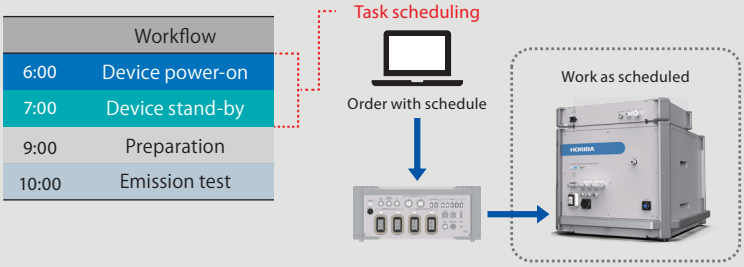
*1 Comparison with our conventional On-board Emissions Measurement System "OBS-ONE series".



■ User-friendly operation



Reduce the hassle of cylinder switching during calibration with the calibration unit



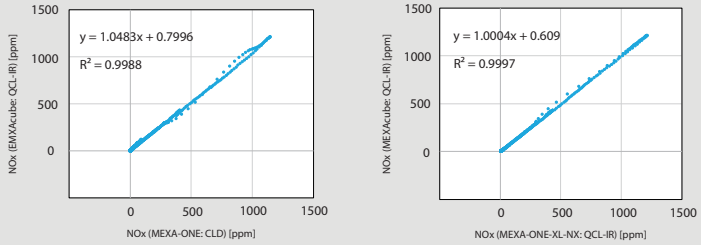
The task and schedule functions enable automatic system warm-up, improving test efficiency.

Designed for Reliable Testing

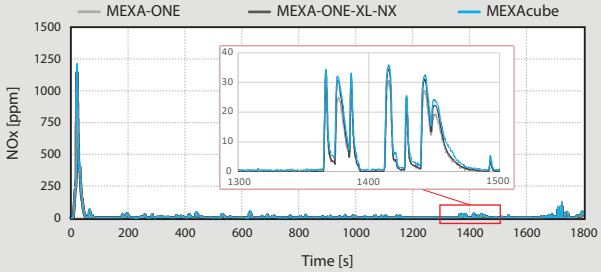
IRLAM by HORIBA

■ High correlation with laboratory analyzers improves development efficiency

Gasoline, Test cycle: WLTC

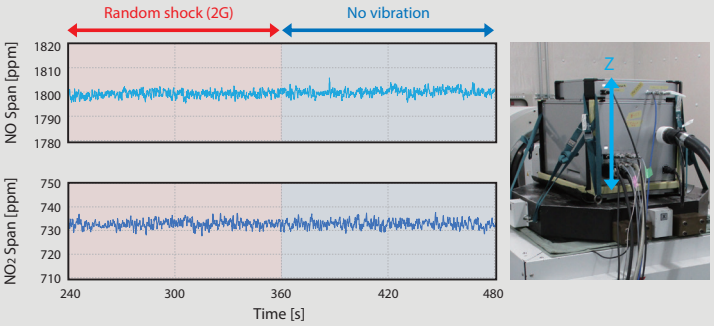


Correlation between MEXAcube and other analyzers

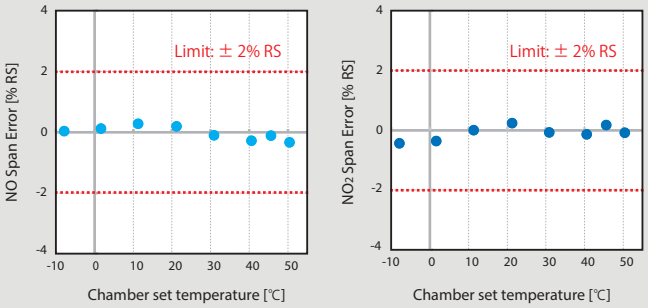


High correlation and excellent responsiveness, even in low concentration areas!

■ HORIBA's proprietary technology "IRLAM" *2, which shows high stability against vibration and temperature, ensures reliable testing.



High stability against shocks around 2G

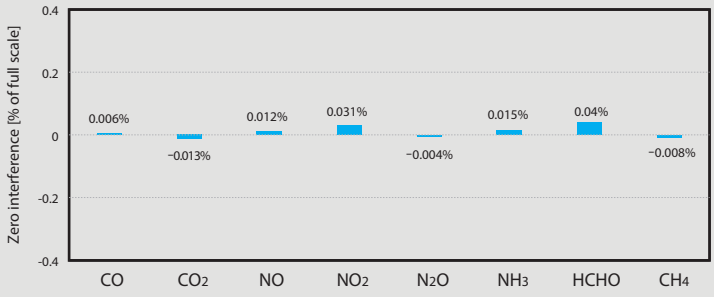


Can be used stably at -10 to 45℃

*2 Infrared Laser Absorption Modulation (IRLAM™) is a next-generation infrared gas analysis technology developed by HORIBA.

For Carbon Neutrality*3

■ Compatible with high moisture exhaust gases when burning carbon neutral fuel

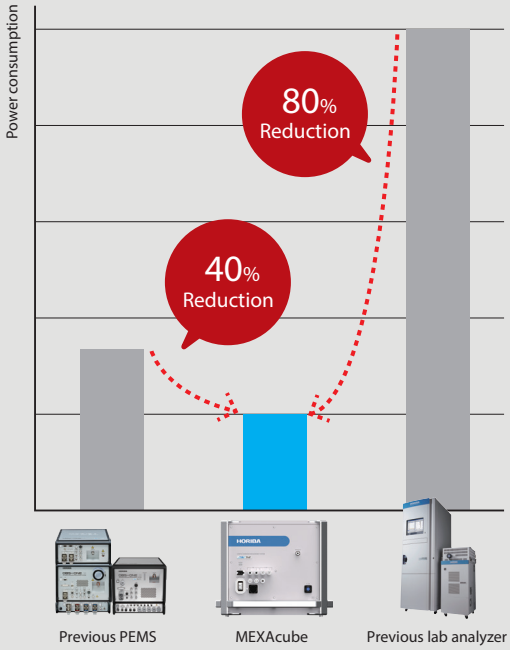


Zero interference in the presence of 24% moisture

Please contact HORIBA for applications with higher moisture

■ Reduced power consumption

- Reduces power consumption by approx. 80% compared to previous lab analyzer and approx. 40% compared to previous PEMS*4
- Contributes to power savings in development facilities toward carbon neutrality



*3 Carbon Neutrality means balancing emissions and absorption of carbon dioxide and other greenhouse gases.

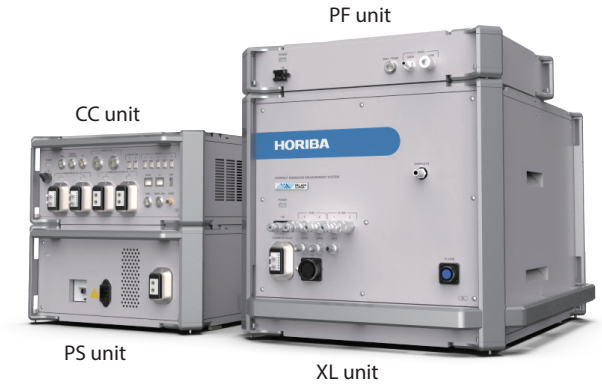
*4 Comparison with our conventional Motor Exhaust Gas Analyzer "MEXA-ONE series" (laboratory installation type) and On-board Emissions Measurement System "OBS-ONE series".

Specification

Measurement principle	Quantum Cascade Laser Infrared Spectroscopy (QCL-IR), THC: Flame Ionization Detector; FID			
Laser class	Class 1 (based on IEC:60825-1:2014)			
Measurement components and range	CO	0 - 8000 ppm, 0 - 12 vol%	NH_3	0 - 1500 ppm
	CO_2	0 - 20 vol%	HCHO	0 - 50 ppm
	NO	0 - 2000 ppm	CH_4	0 - 2000 ppmC, 0 - 10000 ppmC
	NO_2	0 - 800 ppm	THC	0 - 10000 ppmC
	N_2O	0 - 1000 ppm		
Sample line temperature	190℃			
Sample gas flow rate	Approx. 3 L/min (20℃, 1 atm)			
Usage environment	Temperature: -10℃ to 45℃, Humidity: 80 % or less, Altitude: 0 - 3000 m above sea level			
Rise time t_{10-90}	2.5 seconds or less			
Drift (4 hours under 20°C)*5	NO, NO_2, NH_3: [Zero] ±1.0 ppm [Span] ±1.0 % RS HCHO: [Zero] ±0.5 ppm [Span] ±1.0 % RS			
Zero noise (3σ under 20°C)*5	NO: 1.0 ppm or less, NO_2, NH_3, HCHO: 0.5 ppm or less			

External dimensions and system configuration (Unit: mm)

Image of system configuration*6 *7



*5 Please contact us for specifications of other components.
*6 Can be combined with other units (OBS-ONE-PN, etc.)
*7 XL Unit: Gas analyzer unit, PS Unit: Power supply unit, CC Unit: Central control unit, PF Unit: Exhaust gas flow measurement unit

IMS

The HORIBA Group adopts IMS (Integrated Management System) which integrates Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System ISO45001.
We have now integrated Business Continuity Management System ISO22301 in order to provide our products and services in a stable manner, even in emergencies.

⚠ Please read the operation manual before using this product to assure safe and proper handling of the product.

https://www.horiba.com/int/

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