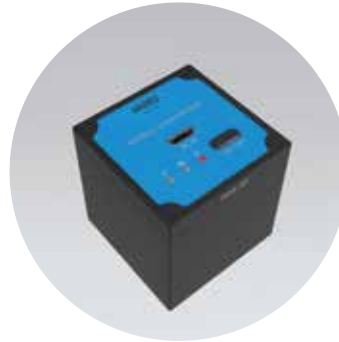


Wireless Vibration Analyser



MORU ENGINEERING Co., Ltd.

10, Hakhanam-ro 47beon-gil, Yuseong-gu, Daejeon 34208 Korea

T: +82-42-863-2571 F: +82-42-934-2579

www.moru.kr

High Resolution Wireless Vibration Analyser_102A



- Eliminating complex accelerometer cable
- Saving for sensor installation time upto 1/3 times
- Prevent cable noise and connection
- No restriction application (Automobile field test, Power plant, Nuclear area)

Feature



The 102A wireless vibration monitoring system converges on the traditional wired vibration measurement system with wireless concept and makes a new way in the vibration testing. It makes an innovation on intelligent sensor, useful system and economic products. Also makes a new paradigm with human intention, time saving and beyond space limitation in vibration testing application.



- 80grams, the lightest weight in the world
- Only 40 x 40 x 40 mm (W x H x D) dimensions

- 10 pcs of accelerometer connection with full communication ranges
 - Real time data transfer and analysis
 - Integrated Wi-Fi communication antenna
- 50g input range with 2,000Hz frequency range
- Low power consumption with an integrated Lithium-Polymer battery

Customer Application



Airplane modal testing



Automobile vibration testing



Train main component monitoring

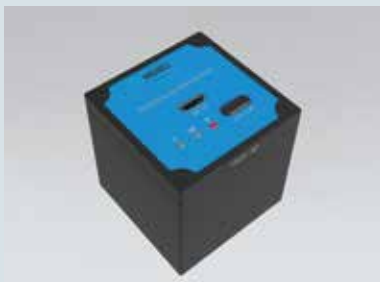


Plant equipment diagnosis and monitoring

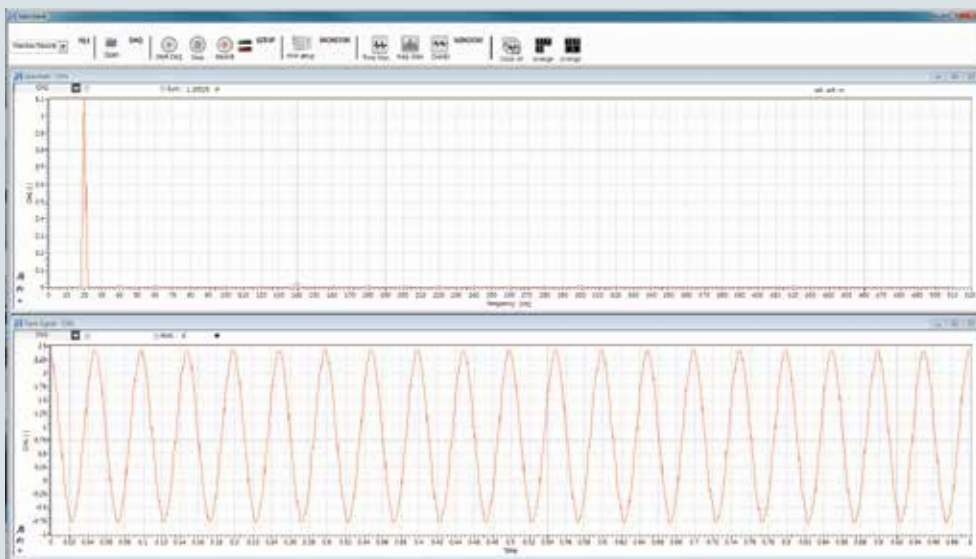
System Configurations

The 102A wireless accelerometer can perform the various measurements with only 80grams light weight and measure 0 to 2,000 frequency width in 50 g input range.

Multi-channel signal analysis module sets over 10 pcs of accelerometer and analyzes vibration signal with real-time data. Furthermore it can support post-processing functions for various precision analysis.



Signal Analysis Module



Main functions

Setup: Accelerometer IP, Filtering, Calibration, Data store & Export
Monitoring: Time domain, FFT, Display, Start/Stop
Time Domain: Raw data recording, Play and Edit
FFT: Spectrum Average, Time Average, FFT Setup
Post-processing: Data Load, Edit, Analysis, File converting
Report

Hardware feature

Portable and compact touch screen controller
Rugged and easy handling
Intel i7-3517UE, 1.70 GHz Processor
128GB SSD Storage and 8GB Memory
12.1" WXGA 5 wires Resistive Touch Screen
1880 mAh Dual Battery packs
Various Interface Support
Win 7 Pro OS

Accelerometer Specifications

Performance_ By Model: VS= 3.3VDC, TC=25°C									
Model Type	Units	101A-02	101A-05	101A-10	101A-25	101A-50	101A-100	101A-200	101A-400
Input Range	g	±2	±5	±10	±25	±50	±100	±200	±400
Sensitivity (100Hz)	mV/g	2,000	800	400	160	80	40	20	10
Frequency Response (3 dB)	Hz	0 ~ 400	0 ~ 600	0 ~ 1,000	0 ~ 1,500	0 ~ 2,000	0 ~ 2,500	0 ~ 3,000	0 ~ 4,000
Output Noise (RMS)	µg/√Hz	5	7	10	25	50	100	200	400
Max. Mechanical Shock	g	2,000							

Performance_ All Model: VS= 3.3VDC, TC=25°C, Differential Mode				
Parameter	Units	Min.	Typ.	Max.
Cross Axis Sensitivity	%		1	2
Bias Calibration Error	% of span		0.2	0.5
Non-Linearity (-90 to +90% of Span)	% of span		0.5	1
Operating Voltage	VDC		3.3	
Operating Current	mA		80	
Battery operating time	Hour		6	
External Charging Voltage	VDC		5	
Analog to digital converter	ks/s	200, 16 bits, Serial ADC		

RF Parameters_ All Model		
Parameter	Units	Max.
Communication distance	Meters	30
Wireless Protocol Stack		802.11 b/g/n
Data Rate	Mbits/s	72.2
RF Frequency Range	GHz	2.5, support WPA/WPA2
TX Power	mA	80
Antenna		Internal PCB antenna

Physical Parameters_ All Model		
Parameter	Units	Max.
Housing Material		A7075
Weight	grams	80
Mounting Hole		10-32UNF
Temperature Range	°C	-20 to +60
Environmental Seal	IP	54
Dimensions (Height x Length x Width)	mm	40 x 40 x40
Battery		Lithium-Polymer, 600mAh

Signal Analysis Module Specifications

Physical Parameters_ All Model	
Parameter	
Processor	Intel i7-3517UE, 1.70 GHz
Data Storage	128GB SSD
System Memory	8GB
Monitor	12.1" WXGA 5 wires Resistive Touch
Wireless Communication	802.11b/g/n
Camera	2.0MP Front facing, 5.0MP Rear Facing Camera
Battery	Dual Battery packs, 1880mAh
Interface	Display port, RJ45, 2 X USB 3.0, Audio In / Out, RS232
Case Material	ABS
OS	Windows 7 Pro, English version

Accessories

Mounting base



Contact Point

Phone: +82 42 863 2571

E-mail: admin@moru.kr

Website: www.moru.kr

Blog: <http://blog.naver.com/morueng>

Company solutions

Mechanical Design and Manufacturing



On-site Test Engineering Service & Consulting



Sales Test Equipment and Sensors



Quality Management System

KS Q ISO 9001 : 2009/ ISO 9001 : 2008

