

Specification

►CardVibro Air 2 Common Specification

Item	Specification
Interface	Wireless LAN: IEEE802.11b, In conformity to WiFi 128bit WEP, WPA/WPA2
Wireless Communication Mode	Infrastructure Mode
Built-in Memory Capacity	4Mbit×16bank
Power Supply	2 pcs. of AAA battery
Consumption Current	Under measurement (During Use of WiFi) : about 150mA
Ambient Temperature	+5°C~+50°C (Guaranteed by attached battery)
Ambient Humidity	30~90% No condensation
Sampling Frequency	Max. 76.8kHz
AD Resolution	16bit
Operational Tablet OS	Android3.2, Android4.1, Android4.2, Android4.3 *only Android OS approved by IMV Please see IMV website for updated information on recommended tablets. https://www.imv.co.jp/e/products/vibrograph/measure/air2/



Standard Composition



Exclusive software "CardVibro Air2" is available to be downloaded from Google Play.
*Tablet PC is required to be purchased separately.

►CardVibro Air 2
Standard Type
VM-2012

Item	Specification
Mass	About 145g
Size	41.5mm(D) x40.5mm(W) x88.6mm(H)
Sensor	Piezoelectric Accelerometer
Acc. Frequency Range	10~10kHz
Vel. Frequency Range	10~1kHz
Disp. Frequency Range	10~150Hz
Maximum Measurement Acceleration	500m/s²

►CardVibro Air 2
Connector Type
VM-2012C

*Can not be used as a separate item, needs to connect with an optional pickup.

Item	Specification
Mass	About 130g (without a sensor)
Size	41.5mm(D) x40.5mm(W) x88mm(H)
Connecting Sensor	Voltage Output Sensor, ICP sensor
Voltage Output Port	-5V, +5V
ICP Port	+24V (2mA)
Voltage Input Port	±2.5V

IMV CORPORATION

●Tokyo Sales Office

Kuretoishi-Bldg. F4, 2-1-5 Hamamatsu-cho, Minato-ku, Tokyo, Japan 1050013
Tel. +81-3-3436-3920 Fax. +81-3-3436-3926

●Osaka Sales Office

2-6-10 Takejima, Nishiyodogawa-ku, Osaka, Japan 5550011
Tel. +81-6-6478-2575 Fax. +81-6-6478-2567

●Nagoya Sales Office

106-1, Neura, Ukigai-Cho, Miyoshi-Shi, Aichi, Japan 4700207
Tel. +81-5-6135-5188 Fax. +81-5-6136-4460

<http://www.imv.co.jp/e>

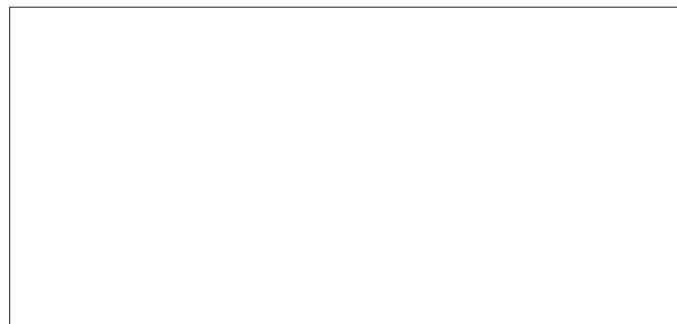
*Product specifications and appearances are subject to change without notice.



►CardVibro Air 2 Composition

		Standard Type	Connector Type
►Data Management Software DB-2012 Use to manage the measured data on P.C.		●	●
►Equipment Diagnosis Software DS-2013Tr Detailed diagnosis function to see abnormality, such as Unbalance or Miss alignment location		●	●
►Carrying Case B-2012 To store Air 2 Unit and Tablet PC		●	●
►Small size strong magnet MH-202R To fix the sensor to the measurement spot		●	—
►Small size strong magnet(for spherical surface) MH-203R Suitable for mounting on a spherical surface, such as pipes		●	—
►Long probe PI-2001 To use a long sensor probe. (Length:185mm)		●	—
►Long Cable 3 m CE-2012- 3 m 10m CE-2012-10m Use to extend the pickup cable. Compatible to all input pickups.		—	●
►Piezoelectric Acceleration Pickup VP-2012A Accelerometer		—	●
►Low Frequency Vibration Measurement Pickup VP-2012PS1 Use measurement of Low Frequency Vibration fixed on the spot by both side adhesivetape etc. Piezo-resistive type, cable extension 2.5m.		—	●
►Charge Amplifier CA-2012 Use for the general purpose Piezoelectric Accelerometers. With BNC input connector. A low noise cable between CA-2012 and the pickup is additionally necessary.		—	●
►Dedicated holder HL-2012 A holder to fix the Air 2 Unit of connector type.		—	●
►Sensor input cable CC-2012 For ICP sensor connection		—	●

*Please feel free to contact us if you wish to use the conventional optional extras.



WiFi Portable Vibrometer

CardVibro
Air2

CATCH THE VIBRATION

- Operation with Android Tablet PC
- Reliable Wireless Data Collection (WiFi)
- Compact and Lightweight
- Low Power Consumption



IMV CORPORATION

CATCH THE VIBRATION



WiFi Portable Vibrometer
CardVibro Air2



Wireless CardVibro Air 2 is available at any measuring situation

CardVibro Air2 is of course capable in the conventional use and other severe condition places with WiFi and powerful data processing function.

Maintenance of rotating machineries

Blowers or Pumps

Vibration condition check

Pipes

Measurement of small displacement

Machine Tools

Wildly vibrating place

Robot arm

High place

Cooling tower

Narrow space

Narrow space between machines

Partitioned place

Clean Room

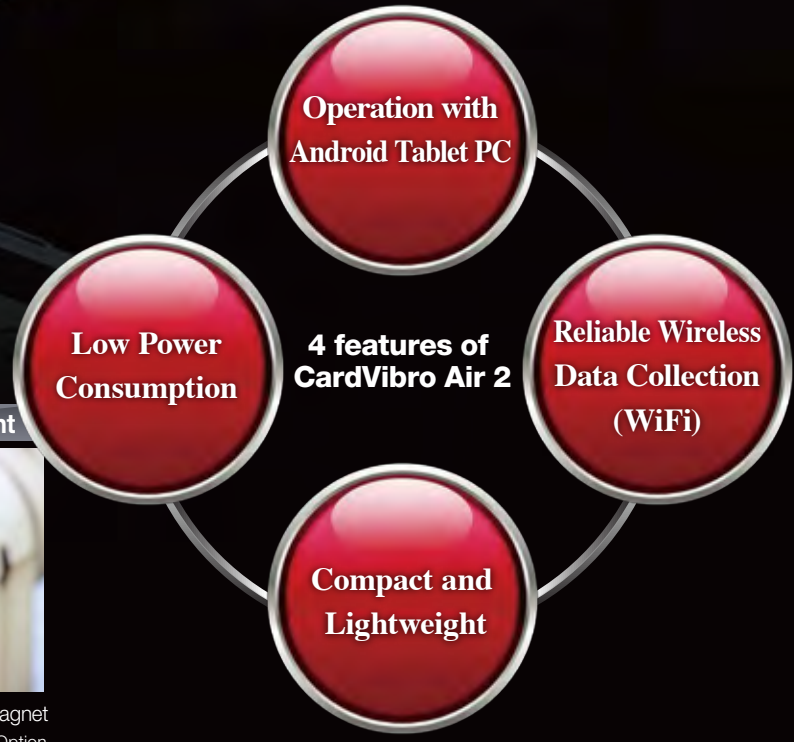
2 choices of measuring methods



With dedicated sensor probe, it can measure vibration directly, and no need to worry about a cable pulled into a rotating machine with wireless Air2.



Hands-free measurement with a magnet
*Small magnet: Option



4 features of CardVibro Air 2

Useful Functions

Simultaneous Measurement

Support of Quick and Easy Measurement

There are many functions to express characteristics of vibration. However, it is necessary for the conventional vibrometers that same point is measured plural times switching objective functions one by one. CardVibro Air 2 which has simultaneous measurement function which can measure Displacement, Velocity and Acceleration. Acceleration Envelope for bearing condition Assessment is also simultaneously measurable by just pressing on the measurement start key.



Data Saving

Important Basic Function

All data acquired can be saved if the Android tablet PC is compatible to the storage card, such as SD card. Data can be transferred to PC for more efficient handling by using data management software.



Evaluation Function

Evaluation at the site

You may want to make evaluation of conditions of the rotational machineries as blowers or motors at the site by just measuring their vibrations. With CardVibro Air 2, such evaluation is possible based on the standard for the Vibration Severity ISO-10816 (JIS-B-0906) and the original criteria for bearing evaluation. These functions help you make easy and quick judgement.



FFT Analysis

For Investigation of Cause of Vibration

If the measured magnitude of vibration is too large, the cause investigation by FFT is recommended. CardVibro Air 2 is possible to perform Frequency Analysis only by the minimum condition setting. Try fine analysis with 12800 lines on the small body. CardVibro Air2 could be your strong handheld weapon to root out the harmful vibration!



Waveform Observation

Failure Mode Detection at First Grance

Status change of vibration can be known by looking. Maximum 30 minutes of waveform can be recorded.



Monitoring Function

Real-time Monitoring

Almost real-time monitoring of waveform data and FFT is possible.



Route Setting Function

The next point to be measured will be displayed as setting.

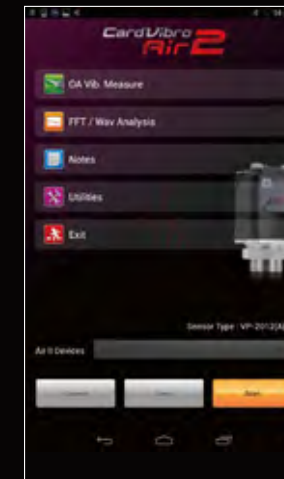


*Screen are under development, it may be changed.

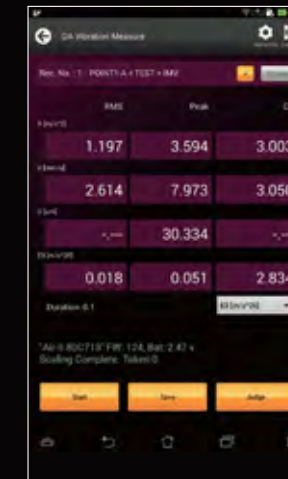
A standard model of New Era emerged changing

Operation with
Android Tablet PC

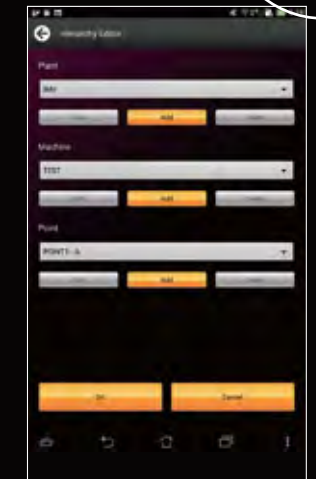
▶ Measureable in Android OS



Main Menu Screen



OA value Measurement Screen



Measuring Point Setting Screen

Easy measurement with
Android Tablet.

Reliable Wireless
Data Collection
(WiFi)

▶ High speed signal communication with WiFi



Remote measuring with WiFi



Waveform Display Screen
*Tablet PC is not included in a standard unit.

Other Features of CardVibro Air 2

High capacity memory of built-in 4Mbit



Practical Waterproof(IP65)



Can attach a neck strap at the top



the common sense of vibrometer.

WiFi Portable Vibrometer
CardVibro Air2

Compact and
Lightweight

► Compact and lightweight



Low Power
Consumption

► Continuous 6 hour operation with 2 AAA batteries



Connector type is compatible to other optional pickups.



*Connecting image with Low Frequency Vibration Measurement Pickup of VP-2012PS1.



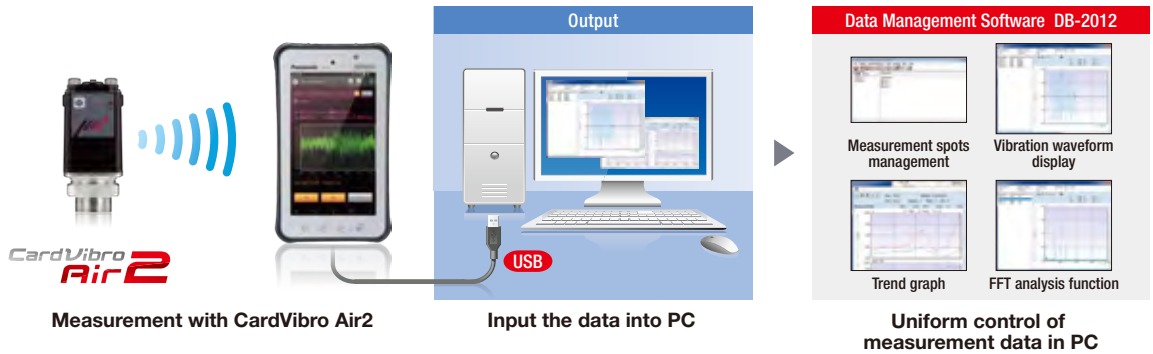
*Connecting image with Charge Amplifier CA-2012 and Small Pickup VP-02S.

Advanced Software

Data Management Software (DB-2012)

► Feature

Data Management Software DB-2012 is a software to manage the measured data practically on a P.C. The data are transferred through USB to P.C. using SQ Lite as data base. With the data acquired by CardVibro Air2, it is able to manage and display Trend graphs, FFT analysis and Waveform.

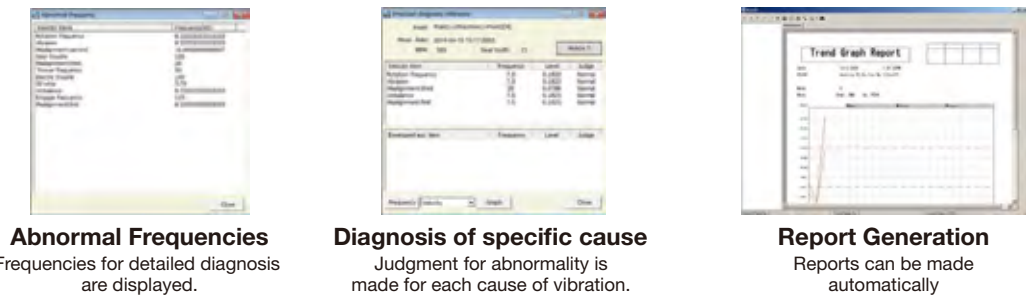


Equipment Diagnosis Software (DS-2013Tr)

Equipment diagnoses software DS-2013Tr can display abnormal frequency or diagnosis with judgment function based on measurement data from Air2 device by setting of bearing information and judgment criteria is possible in master registration.



More detailed equipment diagnoses is possible.



Features

► Data Management Software DB-2012

- Data transfer or synchronization between tablet PC and PC is easily available.
- Measurement spot management / Trend spot / Waveform display / FFT analysis function.
- Plots of the measured data can be printed out in Microsoft excel file format.
- FFT data, waveform data can be output in CSV format.
- Language: Japanese/English/Korean/Chinese(Simplified & Original)

► Equipment Diagnosis Software DS-2013Tr

- Successor of functions of DS-2005Tr
- Setting of bearing information and judgment criteria is possible in master registration.
- Trend management by easy diagnosis function, imbalance or misalignment location by detailed diagnosis function etc. are available item by item.
- Reports can be made automatically.
- Language: Japanese/English

Specifications

	PC	Tablet
OS	Windows7(32, 64 bit)	Later than Android 3.2
Interface	USB Windows Media Player is necessary for communication with tablet. (Version 12 is recommended)	USB MTP connecting function is required for communication with tablet.
Software	Microsoft Excel is required (2010 is recommended)	
Memory	More than 2GB.	More than 1GB.