Vibration and Temperature Data Collector & Analyzer

Measurement: Vibration, Temperature, RPM, Noise

Real-Time FFT & Spectrogram

FFT Based Octave Analyzer & RPM Meter

Digital Filter Based Octave Analyzer

Sound & Vibration Level Meter

Temperature Display Function

0.5Hz ~ 16kHz Bandwidth

www.svdigital.com
www.digitalsv.com
www.svemall.com

(CMS Shopping Mall)
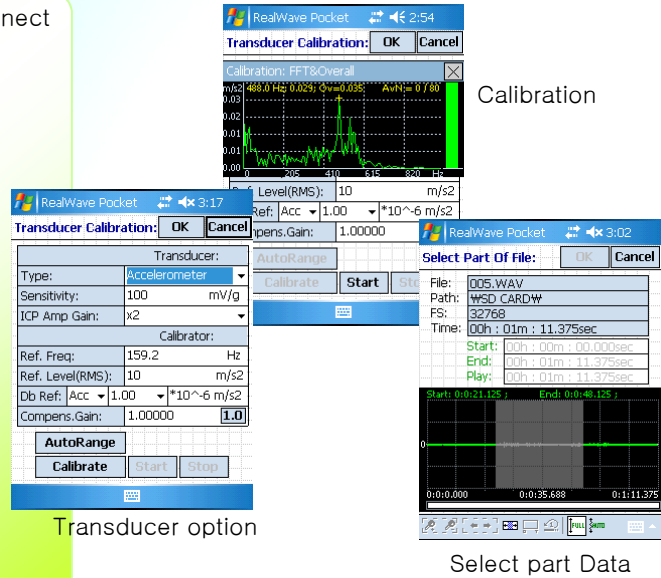
RealWave Pocket **Analyzer**

SV SV Corporation

RealWave Pocket Analyzer

The data acquisition card using CF Card Type II type is inserted to the CF memory slot of PDA to analyze Real Time FFT, Spectrogram, Digital Filter Based Octave Analyzer, RPM Meter, VLM, SLM, Temperature meter Display as a portable data collector and analyzer.

Basic Function

IEPE Type Mic, DC input, or Accelerometer direct connect

Real Wave File save and replay more than 1 hour

Sensitivity Calibration

Measurement title & machine name store

Measurement configuration and file save & recall

FFT, octave, data save and comparison

Select part function(file select area extension)

Data part area select, replay, and analysis

Input signal gain: 1, 2, 4, 8, 16, 32, 64 times

Overload Detector

Scale select : Linear, Log, dB

Data Output : – jpeg, bmp

         – text, excel, matlab

Calibration

Transducer option

Select part Data

Vibration Level Meter

Sampling Frequency: 32768Hz, 4096Hz, 1024Hz, 512Hz, 256Hz

Filter: – Emulation Filter 5.8~2 kHz and 23~10 kHz,
      – High-pass Filter with 1Hz, 5Hz, 10Hz and 100~15 kHz cutoff,
      – Band-pass Filter with 0.5~200Hz, 1~1 kHz, 10~500Hz and 10~1 kHz
      – Band-limit Filter with 1.6 kHz, 200 Hz, 100 Hz,
      – Whole-body combined filter (ISO6954, ISO8041)

3 Detectors: Acceleration, Velocity, Displacement

Integration time & time constant control

Unit : • Acc. : m/s², cm/s², mm/s², um/s², g, dB
      • Vel. : m/s, cm/s, mm/s, um/s, dB
      • Disp. : m, cm, mm, um, dB

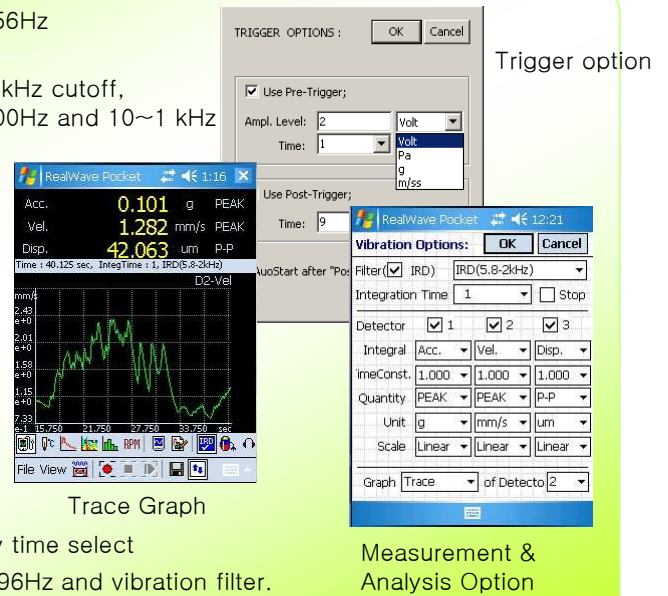RMS, Peak, Peak-to-Peak, Min, Max value

Integration time control

Trigger setup, Auto Scale

Measured data and wave file save & replay in real time

Time constant : 35ms(I), 0.125sec(F), 1sec(S) and arbitrary time select

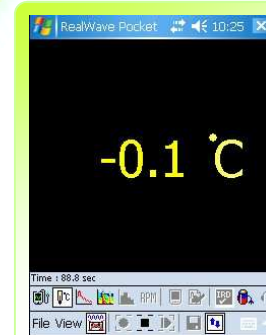FFT or Octave analysis works at the same time in below 4096Hz and vibration filter.

Trigger option

Trace Graph

Measurement & Analysis Option

Vibration Filter Mode

– Vibration Level Meter Filter Support .

– FFT data output

–ERP or Data Base interface support with Client Software

Temperature Display

–Temperature value display & measurement from the infrared Temperature meter.
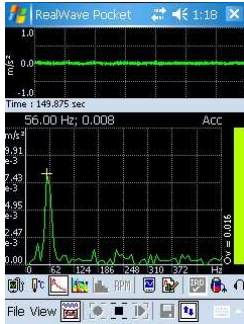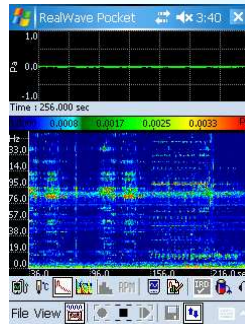
–Temperature save

Handheld Infrared Thermometer →

RealWave Pocket Analyzer
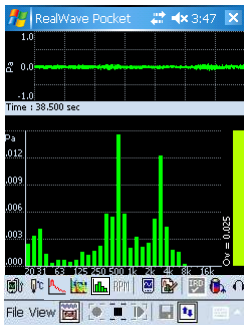
FFT, Spectrogram, Octave Analyzer
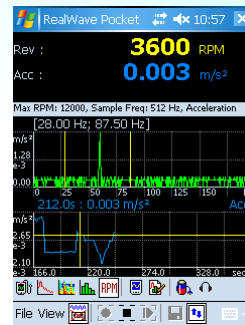

Time Signal과 FFT Graph

Time Signal과 Spectrogram

Sampling Frequency : 256Hz ~ 32768Hz(Selectable)
Buffer Size : 256, 512, 1024, 2048, 4096(Selectable)
Max. 1600 Lines
Window : Rectangular, Hanning, Flattop
Average : Linear, Peak, Exponential
Weight : A, B, C, D, E
Acceleration, Velocity, Displacement Spectrum
Nth Octaves: 1/1, 1/3, 1/6 Octave
Auto peak-detecting and auto y-axis scaling
in the spectrum
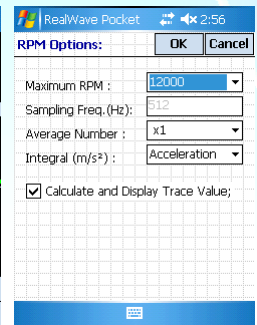FFT data save up to Max 10 sec

FFT Based RPM Meter

Time Signal
and Octave

-RPM calculation at the first order
peak in FFT data of the signal from
Accelerometer and Microphone
- Max RPM display : 96000RPM
- 4096 Buffer Size, Hanning Window,
Exponential Average
- Picket Fence Error is compensated
for RPM Calculation
- Velocity and Displacement Spectra
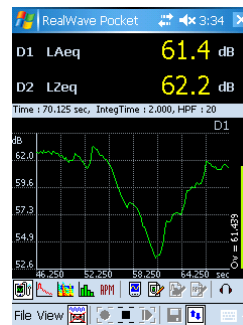- Calculate and Display Trace Value
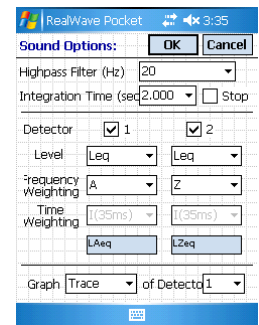

FFT Based RPM Meter

Sound Level Meter

Sampling Frequency:
 - 32768Hz, 4096Hz, 1024Hz, 512Hz, 256Hz

Filter :
 - High-pass Filter(1Hz, 20Hz cutoff)

Simultaneously 2 detectors and Trace Graph display
 - Leq, Lp, Lmax, Lmin, Lpk measurement
 - Weight Filter : Z, A, B, C

Ttime Constant : I(35ms),F(125ms), S(1s)
Leq, Lp, Lmax, Lmin, Lpk value
Integration time control

Trace Graph
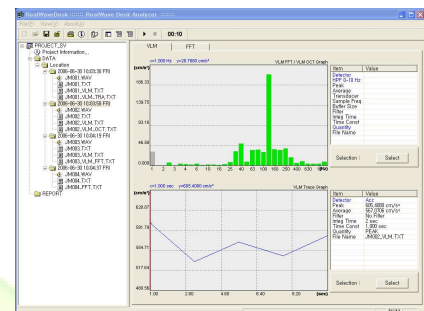

Option setup

Audio file Replay

Wave file save

Real Time FFT • Spectrogram •
FFT Based

Octave Analyzer • Filter Based
Octave

Audio file replay of Analyzer • VLM
• SLM mode in real time

RealWave Desktop Program

VLM Trace, SLM Trace,
FFT, Octave Data Graph,
Text Data display

PC Base Audio file replay

Data management &
reporting function

PC program display

RealWave Pocket Analyzer

Basic System Configuration

PDA HP iPAQ hx2700, hx2400, Socket SoMo 650

RealWave Analyzer Hardware (CF Card Type Ⅱ)

Microsoft ActiveSync, Firmware Upgrade Program

RealWave Pocket Analyzer Software

USB Sync Cable

2GB SD Card

Manual

Alumium Carrying Case(370mmX270mmX80mm)

Specification

1. RealWave Pocket Analyzer hardware (Front-end)

Input Channel : 1 AC input or 1 DC input

Transducer Type :

IEPE Type, AC Voltage Type

Sampling Frequency (MAX) : 32768Hz

Input Voltage Range : ±5V(peak)

Dynamic Range

SLM : 20 ~ 134dB(50mV/Pa x 10Gain)

VLM : 45 ~ 160dB(50mV/g x 10Gain)

Digital Gain : 2x, 4x, 8x, 16x, 32x, 64x

ADC SNR : 100dB more

Freq. Range : 0.5 Hz ~ 16 kHZ (3dB)

Interface : CF Card Type Ⅱ

Dimension(WxHxD) : 43 X 58 X 5(14) mm

Data Save

Wave File : 1 hour
VLM. SLM Data File : 64 days(4Gb)

2. RealWave Pocket Analyzer Software (Option)

Vibration & Sound level meter

Real-Time FFT

Real-Time Spectrogram

FFT Based Octave Analyzer

Digital Filter Based Octave Analyzer

Wave file recording

Overload Detector

Linear, Log, dB scale selectable

Image : JPEG, BMP Text : TEXT, EXCEL, Matlab

Hardware Option

Accelerometer, Mounting magnet and cable

Microphone and cable

Extended Battery

Headphone

Dust and Water proof case

Infrared Temperature Meter

Ssystem Diagram

Handheld Infrared Thermometer (Option)

CF DAQ Card

SD Memory Card

External Battery & Recharger (option)

Accelerometer & Magnetic (option)

Desktop Reporting S/W

Aluminum Bag

Vibration Data Collector and analyzer for machine diagnosis

Sound & Vibration
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