

# VT RTA-168

## PC Real Time Audio Spectrum Analyzer & Sound Level Meter

Sampling Rate: 48 kHz; Bandwidth: 20 ~ 20 kHz; 1 Input Channel  
1/1 ~ 1/96 Octave Analysis, Frequency Weighting: Flat, A, B, C, ITU-R 468



### Introduction

Real Time Analyzers (RTAs) are often used by sound engineers and acousticians installing audio systems in all kinds of listening spaces: auditorium, home theatres, cars etc. They are used to measure in real time the frequency response of an audio system within the confinement of the environment, taking into account the frequency response of the audio system itself as well as all the environmental effects such as resonance and constructive and destructive interference. One can then adjust the equalizer to make an inversed frequency response such that the combined frequency response is flat or aligned to the preference of the audiences. Normally Pink noise is used as the test tone and octave analysis is set in the spectrum analyzer.

VT RTA-168 is a PC based USB real time analyzer, sound level meter and distortion analyzer... It is able to perform all the functionality of a conventional RTA such as the measurements of frequency response and sound level, with finer resolution and higher accuracy thanks to the computing power of a modern computer. In addition, it can measure various types of distortion and perform a comprehensive set of functionality that is usually not found in a conventional RTA.

### Package Contents

- 1) Measurement microphone and its accessories (a windshield and a microphone clip)
- 2) XLR-to-USB Converter
- 3) USB cable (1.5 m)
- 4) CD (contains the copy-protected Multi-Instrument Software)
- 5) USB hardkey (contains a Multi-Instrument Standard License)
- 6) Audio Test CD (contains a list of audio test tones and noises)
- 7) 1/8" TRS cable (1.8m)
- 8) Black Soft Pouch Case
- 9) Individual Sound Level Calibration Data
- 10) Individual Microphone Calibration Data (only provided in RTA-168B)



### Powered by Multi-Instrument®, a powerful multi-function virtual instrument software

Free to download and try with full functionality using your sound card: <http://www.virtins.com/MIsetup.exe>



### Overall VT RTA-168 Specifications

Frequency Range: 20Hz ~ 20kHz  
 Sampling Rate: 44.1kHz / 48kHz  
 Bit Depth: 16 bits  
 Number of Input Channels: 1  
 Frequency Accuracy: 0.01%  
 Frequency Weighting: Flat, A, B, C, ITU-R 468  
 Time Weighting: Linear, Exponential  
*(Equivalent Continuous Sound Level (Leq) fully complies with IEC61672)*  
 Sound Level Range: 25dB~110dB, adjustable through both the hardware gain switch and software gain slider  
 Sound Level Accuracy: ±0.3dB at 94 dB, 1kHz  
 Octave Analysis: 1/1, 1/3, 1/6, 1/12, 1/48, 1/96 *(complies with IEC61260)*  
 Other Functions: THD, THD+N, SINAD, SNR, SMPTE IMD, DIN IMD, CCI2 IMD, etc.

VT RTA-168 Series Hardware Configuration		
Item	RTA-168A	RTA-168B
Measurement Microphone	ECM999	EMM-6
XLR-to-USB Converter	VT XLR-to-USB Pre	VT XLR-to-USB Pre