

## Audio/Sound Analyzer SG-5321A



- **Introduction:**

This signal analyzing equipment enables us to conduct a simultaneous measurement for frequency response generated from loud speaker, SPL, impedance, Fo, Ze, THD, Phase, polarity, and Rub & Buzz. High-frequency signal analysis offers even more accurate testing and identification of Rub&Buzz than existing hearing tests. The algorithm of signal analysis applied to this device allows to detect even minute Rub & Buzz due to its innovative and new method. The 4-stage defect setting enables even more in-depth assessment.

- **Special Feature:**

1. Simultaneous measurement and assessment of Frequency Response (SPL), Impedance, Fo, Ze, THD, Phase, Polarity, and Rub & Buzz.
2. High performance SNR>100dB.
3. Sampling rate up to 96kHz
4. Auto calibration : Microphone. Output voltage.
5. 4-stage pass/fail grade setting and management
6. Self-test supported for the hardware system
7. Computer-controlled operation Fast, hot plug USB interface.
8. Records measurement data in a file, calculate and conduct statistical processing (SPC) regarding the Avg, Min, Max, Cp, and Cpk of SPL, Fo, Ze, THD (4-point), Rub & Buzz (4-point).
9. Can perform remote control through the Internet.
10. Easy document printing in MS Word or Excel file (text format only)
11. MIC Pre-Amp, Conditioning Amp, Power Amp System control. Remote control.

12. The comparative measurement can be made for the properties of several speakers.  
(Comparison)

13. The simulated measurement can be made for the changes of properties made in THD and Rub&Buzz according to the change of voltage given. (Simulation)

14. The existing standard microphone (B&K) can be used without any change, since the input terminal has the structure of standard LEMO 7-pin connector.

- **Option-01A:**

Once connected to the automation system, outputs separate signals divided into 4 classes of pass or fail for all measurement items.

- **Specification:**

1. Sweep Analyzer Level Flatness

50Hz - 20kHz <± 0.1 dB.

20Hz - 20kHz <± 0.2 dB.

15Hz - 40kHz <± 0.5 dB.

2. Chirp Analyzer ( Rub&Buzz Sound Correlation )

20Hz - 6kHz <± 0.1 dB.

15Hz - 6kHz <± 0.5 dB.

3. Sweep

**Log :** 1/1,1/3,1/6,1/12,1/24,1/48 Octave steps.

**Lin :** 1 to 2000 steps.

4. Preamp. Input

Via standard LEMO 7-Pin Connector

B&K Connector

Input Impedance : 1 MΩ/100pF

Polarization Voltage : 200V

Power supply : ±15V

5. Power Amp

Output : 10mv - 10.00v RMS.

Max power : 8W - at 8 ohms

6. Standard software

Audio Analyzer Production software

CD (based Windows® XP, Vista, W7)

Pentium®4, 1.5GHz processor minimum or equivalent.

(Celeron processors are not recommended)

7. Interface Bus

Personal computer connected to the instrument through the Audio Analyzer Interface Bus. (USB2.0)

8. Remote control interfaces

15P D-Type connector I/O signal - Start, Pass, Fail,  
Fail [Class1, Class2, Class3, Class4]

SPL Analyzer ON. Rub & Buzz Analyzer ON .

Remote control I/O ※ Terminal Box [Option 01A]

9. Power Requirements

AC 220V 50/60Hz 90VA

10. Dimensions

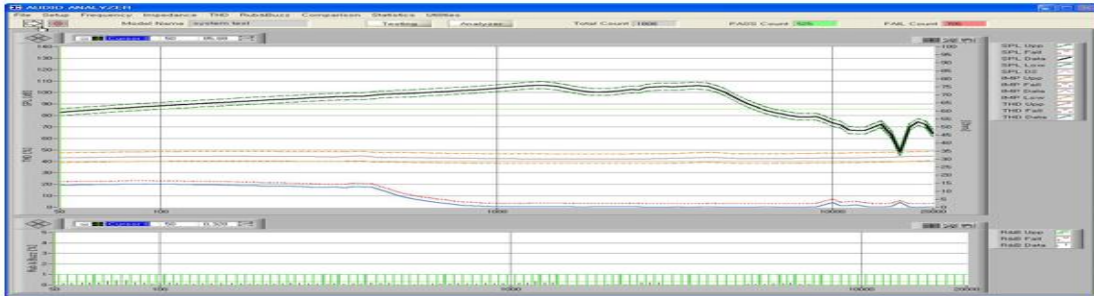
300(W) \* 115(H) \* 255(D) mm

11. Weight

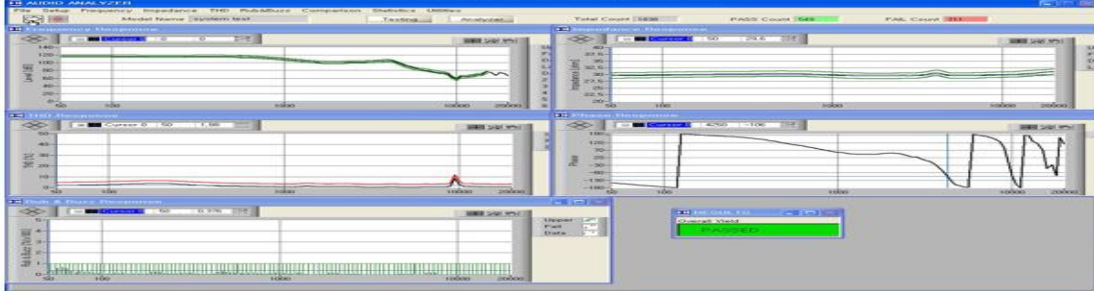
Approx. 4.2Kg

- **Display**

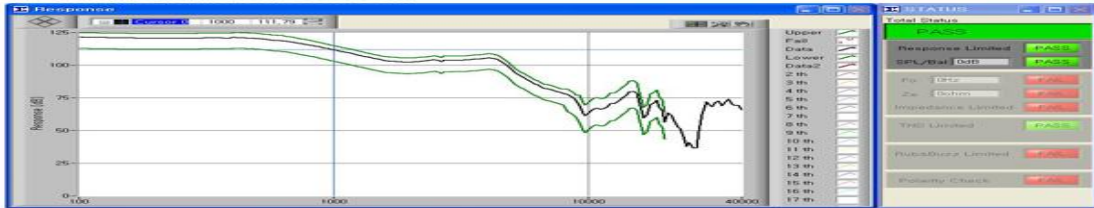
[Main Display : All measurement results are displayed on one page]



[Sub Display : All measurement results are displayed in separate boxes]



[Frequency Response box is zoomed in]

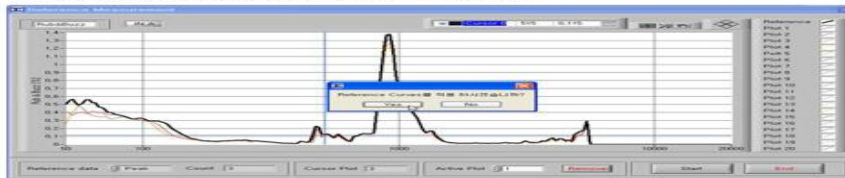


[Measurement result display page]

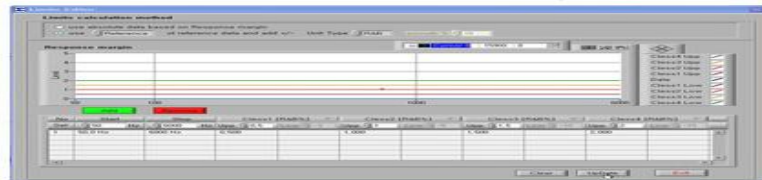


### Rub & Buzz Measurement

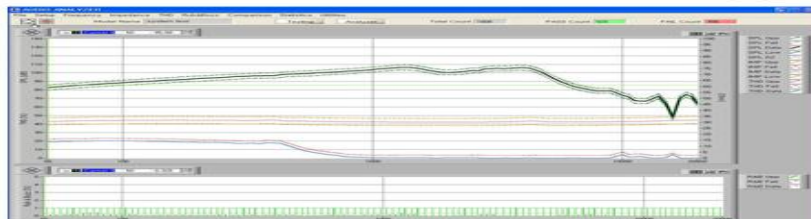
[1] Rub & Buzz value for good speaker is measured.



[2] Pass-Reject criterion is set.



[3] Rub & Buzz control value is calibrated for stable formation and displayed



### Simulation

[Variation rate of THD according to the increase of measurement voltage is measured]

THD Simulation

