### 2. Manufacture of Electric & Electronic Equipment **Production/Technology PR Report No.121**

1. Outline of Firm							
Name of Firm	Adphox CO., LTD.			Name of Representative Person in Charge	Masashi Miyamoto Takashi Narusawa, Sales Department		
Activities	Development and Manufacture of measures, acoustic equipment, etc.			URL	http://www.www.adphox.co.jp		
Main Products	Corona tester, hearing aid, binaural microphone						
Address	Tommy Tower 7F, 10-6-1, Kabe-machi, Oume City, Tokyo						
Tel. Number	0428-24-6042			FAX Number	0428-24-6069		
Capital (M yen)	65	Founded in	Dec. 1991	Sales (M yen)	49	Employees	8

#### 2. PR Items

## All of a sudden, your TV or motor may not operate, and it can be caused by corona discharge.

#### Corona Discharge Tester

Our tester detects corona discharge that causes breakdown by a high frequency. It has been practically used in the fields of backlight transformer of a liquid crystal TV, an inverter motor, etc.

[Characteristics of XT210]

- To exactly detect a weak pulse of corona discharge, it is necessary to distinguish it from the noise caused by a high voltage generation circuit. We devise a circuit for shifting the timing from the excitation pulse (IGBT) for generating a high voltage.
- ✓ A test frequency can be a self-resonant frequency (30kHz ~ 300 kHz), and a test voltage can be up to a maximum of 30kVp-p.
- ✓ We have a selection of products such as XT310 etc. for the respective test pieces using continuous sine waves, and also develop a custom product at your request.





"Neat Processor" a voice clarifying circuit for dynamically changing frequency characteristics

#### Hearing Aid, Acoustic Equipment

Generally to clarify voice, the frequency band including the harmonic component (second formant or less) of the voice is emphasized, but the sound including the main component (first formant) in this amplification area sounds screaming.

[Features]

- ✓ To solve the problem, we have developed the "neat processor" circuit for constantly controlling the rising frequency of the amplification characteristic to emphasize only the high frequency from among the frequencies of the main component.
- ✓ The circuit has been successfully realized as an analog circuit without time delay to improve the clarity of sound of our hearing aid. As a result, we have the evaluation of "natural sound saving wear of users" for the hearing aid.

# <Amplifier characteristics change depending on the frequency of the first formant.>



## 3. Remarks

A patent was granted for the "neat processor" circuit in various nations (Japan, USA, England, France, Germany, and China) in the world.